

DIVISION FOR AIR QUALITY
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
803 SCHENKEL LANE
FRANKFORT, KENTUCKY 40601

FINAL DETERMINATION
ON THE TITLE V APPLICATION OF

ISP CHEMICALS INC.

FOR A SYNTHETIC ORGANIC CHEMICAL PLANT
IN MARSHALL COUNTY, KENTUCKY

REVIEW AND ANALYSIS BY:

Thomas Adams

EIS NUMBER:	21-157-00003	SIC CODE:	2869
REGION:	Paducah-Cairo	COUNTY:	Marshall
LOG NUMBER:	50140	DATE COMPLETE:	February 18, 1997
UTM COORDINATES:	4100.9 N, 379.3 E	TYPE OF REVIEW:	Title V

ATTACHMENTS:

ATTACHMENT A	PERMIT APPLICATION SUMMARY FORM
ATTACHMENT B	PERMIT STATEMENT OF BASIS
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**Commonwealth of Kentucky
Division for Air Quality**

ATTACHMENT A
PERMIT APPLICATION SUMMARY FORM

GENERAL INFORMATION:

Name:	ISP CHEMICALS INC.
Date application received:	December 12, 1996
SIC/Source description:	2869
AFS(10-digit) Plant ID:	21-157-00003
Application log number:	50140
Permit number:	V-99-038(Revision 1)

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	[T] Title V
__Minor	[T] Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	[T] Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
[T] Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	[T] NSPS	<input type="checkbox"/> SIP
[T] PSD(Subsumed)	[T] NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	[T] Not major modification per 401 KAR 51:017, 1(2)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- [T] Source subject to 112(r)
- [T] Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- [T] Certified by responsible official
- ☐ Diagrams or drawings included
- [T] Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
Carbon Monoxide	147	180
Nitrogen Oxides	523	628
Sulfur Dioxide	1826	3784
PM/PM10	16	21
VOC	196	1482
Benzene	2.5	3
Toluene	23	47.3
Maleic Anhydride	1.1	3
Styrene	.5	1
Vinyl Acetate	9	11.1
Acetaldehyde	4	7
Glycohol Ethers	.5	.7
Diethyl Sulphate	0.	0.

* Actuals based on existing KYEIS, Potential based on Application

SOURCE PROCESS DESCRIPTION: ISP Chemicals Inc. is a Synthetic Organic Chemical plant that makes a large variety of intermediates and specialty chemicals for the food, beverage, health care and other industries. Products are produced in continuous and batch mode. Draft permit was issued with units subject to the three HON MACTs, but these has been removed from site. Several affected units have been removed since the issuance of the draft permit

EMISSION AND OPERATING CAPS DESCRIPTION: The source has two construction projects that were constructed with federally enforceable restrictions to avoid PSD.

OPERATIONAL FLEXIBILITY: ISP is constantly modifying and changing product formulas to meet market forces. To assure maximum flexibility to make small changes that do not significantly affect Ambient Air Quality, ISP has submitted a Aworst case≡ analysis of its operating capacity, presenting the worst VOC and worst HAP emissions from all known products.

ATTACHMENT B

PERMIT STATEMENT OF BASIS

CONSTRUCTION/TITLE V OPERATION NO. V-99-038(REVISION 1)

ISP CHEMICAL INC.

CALVERT CITY, KY.

APRIL 19, 2002

THOMAS ADAMS, REVIEWER

PLANT I.D. # 072-2600-0003

APPLICATION LOG #50140

SOURCE DESCRIPTION:

ISP Chemicals Inc. is a large Synthetic Organic Chemical plant that makes a wide variety of intermediates and specialty chemicals.

COMMENTS:

Applicable Regulations: The source is major for Title V (NO_x, CO, SO₂, VOC and HAPs). They are applying for the construction authority for a new Apilot[®] plant with this permit that requires federally enforceable restrictions to preclude 401 KAR 51:017. This permit is being issued as a combined Construction/Title V permit.

The source is subject to the following regulations:

40 CFR 61 Subpart J. *National Emission Standard for Equipment Leaks (Fugitive Emission sources) of Benzene.*

40 CFR 61 Subpart V. *National Emission Standard for Equipment Leaks (Fugitive Emission Sources.)*

40 CFR 61 Subpart Y. *National Emission Standard for Benzene Emissions from Benzene Storage Vessels.*

40 CFR 61 Subpart FF. *National Emission Standard for Benzene Waste Operations.*

40 CFR 60 Subpart Kb. *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.*

40 CFR 60 Subpart Dc. *Standards of performance for small industrial-commercial-institutional steam generating units that commences construction, modification, or reconstruction after June 9, 1989.*

401 KAR 59:010. *New Process Operations* constructed after July 2, 1975.

401 KAR 61:020. *Existing Process Operations* constructed prior to July 2, 1975.

401 KAR 59:015. *New Indirect Heat Exchanger* constructed after April 9, 1972.

401 KAR 61:015. *Existing Indirect Heat Exchangers* constructed prior to April 9, 1972.

401 KAR 51:017. *Prevention of Significant Deterioration of Air Quality.*

SECTION J of this permit covers nonapplicable requirements and regulations.

SECTION K contains a list of equipment, description and date of construction covered by the permit.

Emission Factors: Emission factors are based on historical testing, mass balances and AP-42. The source has submitted calculations for VOC/HAP emissions based on actual production in the APlantware≡ software data system. The review is based upon the highest emissions (worst case) of all products produced.

EMISSION AND OPERATING CAPS DESCRIPTION:

ISP is constantly modifying and changing product formulas to meet market forces. To assure maximum flexibility to make small changes that do not significantly affect Ambient Air Quality, ISP has submitted a AWorst Case≡ analysis of its operating capacity, presenting the worst VOC and worst HAP emissions from all known products.

The Gateway project included in this permit is a new construction that requires limits on production and the installation of controls to avoid the applicability of PSD.

PERIODIC MONITORING:

PM/PM10 controls include a cyclone, baghouses, and scrubbers. Periodic monitoring consists of routine maintenance, monitoring of pressure drops, and periodic visual observations.

The source has a thermal oxidizer to control emissions of benzene to meet the requirements of 40 CFR 61 Subpart V. Periodic monitoring is not well defined in the regulation, so a PM plan that contains averaging periods and monitoring parameters is outlined in the permit. The permittee performs continuous monitoring of the combustion temperature to ensure a greater than 95% destruction averaged on a daily basis.

The source will have a Gateway thermal oxidizer. For this, continuous records of combustion temperature are maintained, along with records of periodic maintenance.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has not incorporated these provisions in its air quality regulations.

PUBLIC AND U.S. EPA REVIEW:

On September 29 , 1999 the public notice on availability of the draft/proposed permit and supporting material for comments by persons affected by the plant was published. The public comment period expired 30 days from the date of publication. During this time no comments were received from the general public.

Comments were received from source. Changes were made to the permit as a result of the comments received. After the close of the comment period, ISP has dismantled several units and requested that they be removed from the permit.

Conditions imposed by Case # DAQ-98033 have been incorporated and subsumed into this permit.

The company has request that Tanks 333/3100 and 333/3109 not be considered insignificant units, due to revised emission estimates.

Several units have been generalized in their descriptions, for example Tank 332/3003 was previously described as a Potassium Hydroxide Storage Tank, the current permit now describes it as a Caustic storage Tank 332/3003. This adds some limited flexibility to make 502(b)(10) changes and potentially reduces the need to submit permit modifications.

Since comments were received from the facility during the public comment period, the permit now being issued is a proposed permit. U.S. EPA has 45 days from the date of the issuance of the proposed permit to comment on it. If no comments are received from U.S. EPA during this period, the proposed permit shall become the final permit.

ATTACHMENT C

PERMIT

Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Title V
AIR QUALITY PERMIT
Issued under 401 KAR 50:035

Permittee Name: ISP CHEMICALS INC.
Mailing Address: P.O. Box 37
Calvert City, Kentucky 42029

Source Name: same as above
Mailing Address:

Source Location: Highway 95
Calvert City, Kentucky 42029

Permit Number: V-99-038 (Revision 1)
Log Number: F070/50140
Review Type: NSPS, NESHAP, Title V, Synthetic Minor
Source ID #: 21-157-00003

Regional Office Paducah
County: Marshall

Application
Complete Date: February 18, 1997
Issuance Date: April 12, 2002
Expiration Date: April 12, 2007

John S. Lyons, Director
Division for Air Quality

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SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto and shall become the final permit unless the U.S. EPA files an objection pursuant to 401 KAR 52:100, Section 10.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

BL1 BLO PROCESS VENTS

Description:

Gamma Butyrolactone (BLO) Unit Process Vents

224 Area #2 BLO Process

225 Area #3 BLO Recovery Process

01 BLO Vent Emissions

Controls: None

BL2 BLO FUGITIVE EMISSIONS

Description:

Gamma Butyrolactone (BLO) Unit Fugitive Emissions

224 Area #2 BLO Process

225 Area #3 BLO Recovery Process

01 BLO Fugitive VOC

Controls: None

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** Pursuant to 40 CFR 63 Subpart F, Sections 63.100(c) and 63.103(e), the permittee shall record and retain information, data, and analyses used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product any organic hazardous air pollutant listed in Table 2 of Subpart F.
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

PY1 PYRROLIDONES UNIT PROCESS VENTS

Description:

2-Pyrrolidone and Sub-Pyrrolidone Unit Process Vents

211 Area 2-Pyrrolidone Process

211 Area Substitute-Pyrrolidones Process

222 Area 2-Pyrrolidone Process

01 Pyrrolidones Unit Vent Emissions

Controls: None

PY2 PYRROLIDONES UNIT FUGITIVE EMISSIONS

Description:

2-Pyrrolidone and Sub-Pyrrolidone Unit Fugitive Emissions

211 Area 2-Pyrrolidone Process

211 Area Substitute-Pyrrolidones Process

222 Area 2-Pyrrolidone Process

01 Pyrrolidones Unit Fugitive VOC

Controls: None

APPLICABLE REGULATIONS:

401 KAR 60:005 (40 CFR 60 Subpart Kb). *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*

1. **Operating Limitations:** None

2. **Emission Limitations:** None

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

311-3006 VOL Storage Tank:

311-3007 VOL Storage Tank:

- a) Pursuant to 40 CFR 60 Subpart Kb, Sections 60.116b(a) and (b), the permittee shall maintain readily accessible records showing the dimensions of each storage tank and an analysis showing the capacity of each tank. The records shall be kept for the life of each tank.

6. **Specific Reporting Requirements:** None

7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VP1 VINYL PYRROLIDONE UNIT PROCESS VENTS

Description:

Vinyl Pyrrolidone Unit Process Vents

326 Area Vinyl Pyrrolidone Crude Process
223 Area Vinyl Pyrrolidone Distillation Process
237 Area High Purity Vinyl Pyrrolidone Process
326 Area Acetylene Purification Process

01 Vinyl Pyrrolidone Unit Vent Emissions

Controls: None

VP2 VINYL PYRROLIDONE UNIT FUGITIVE EMISSIONS

Description:

Vinyl Pyrrolidone Unit Fugitive Emissions

326 Area Vinyl Pyrrolidone Crude Process
223 Area Vinyl Pyrrolidone Distillation Process
237 Area High Purity Vinyl Pyrrolidone Process
326 Area Acetylene Purification Process

01 Vinyl Pyrrolidone Unit Fugitive VOC

Controls: None

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:**

Pursuant to 40 CFR 63 Subpart F, Sections 63.100(c) and 63.103(e), the permittee shall record and retain information, data, and analyses used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product any organic hazardous air pollutant listed in Table 2 of Subpart F.

6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

SR1 SOLVENT RECOVERY UNIT (SRU) SCRUBBER

Description:

SRU Scrubber Vent

231 Area ES-225 Solvent Recovery Process

231 Area ES-425 Solvent Recovery Process

01 SRU Scrubber Vent Emissions

Controls: 231-3406 Venturi Scrubber

SR2 SOLVENT RECOVERY UNIT (SRU) FUGITIVE EMISSIONS

Description:

SRU Fugitive Emissions

231 Area ES-225 Solvent Recovery Process

231 Area ES-425 Solvent Recovery Process

01 SUR Fugitive VOC

Controls: None

SR3 SOLVENT RECOVERY UNIT (SRU) 330-3002 TANK

Description:

330-3002 SRU Recovered Volatile Organic Liquid Tank

01 SRU 330-3002 Tank

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. General Compliance Requirements

(State Origin Requirement) 401 KAR 63:021 *Existing sources emitting toxic air pollutants*

1. **Operating Limitations**: None
2. **Emission Limitations**: None
3. **Testing Requirements**: None
4. **Specific Monitoring Requirements**: None
5. **Specific Recordkeeping Requirements**:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- a) Pursuant to 40 CFR 63 Subpart F, Sections 63.100(c) and 63.103(e), the permittee shall record and retain information, data, and analyses used to determine that the chemical manufacturing process unit does not use as a reactant or manufacture as a product any organic hazardous air pollutant listed in Table 2 of Subpart F.

(State Origin Recordkeeping Requirement)

- b) The permittee shall maintain onsite and make readily available for inspection by the division the Environmental Compliance Task Manual addressing the Venturi Scrubber.
- c) The permittee shall record and retain records of maintenance performed on the Venturi Scrubber.
- d) The permittee shall record daily, for each day that the SRU process is operating, whether the Venturi Scrubber was operating.
- e) Production records and emission estimates for the SRU process.

6. Specific Reporting Requirements: (State Origin Requirement)

- a) Pursuant to 401 KAR 50:055, Section 1(2) and with respect to 401 KAR 63:021, the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3) and with respect to 401 KAR 63:021, if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. Specific Control Equipment Operating Conditions: (State Origin Requirement)

231/3406 SRU Venturi Scrubber: Pursuant to 401 KAR 50:035 Section 1 (7)(b) any control equipment or procedures previously used to achieve compliance with a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022 shall not be removed or altered unless prior approval is obtained from the division. Control equipment may be removed upon approval by the division of calculations that demonstrate that emissions of Toxic Air Pollutants would not have exceeded an ASL level as defined in the former 401 KAR 63:022, Appendix B. Control equipment may also be removed upon the division's approval of results from an approved Air Quality Model, that demonstrates that Maximum ground level concentrations would not have exceed the Threshold Ambient Limits contained in the former 401 KAR 63:022, Appendix B.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdowns or malfunctions which temporarily exceed a standard formerly contained in the former 63:021 or 401 KAR 63:022 shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the division makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall maintain records of production in the SRU. During periods of operation where controls were required to comply with or preclude the requirements of the former 401 KAR 63:021 or 401 KAR 63:022, the permittee shall record and maintain records of whether the Venturi Scrubber was operating.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

VE1 VINYL ETHERS UNIT PROCESS VENTS

Description:

Vinyl Ethers Unit Process Vents

332 Area Crude Vinyl Ethers Reaction Process

332 Area Vinyl Ethers Distillation Process

332 Area Acetylene Purification Process

01 Vinyl Ethers Unit Process Vent Emissions

Controls: None

VE2 VINYL ETHERS UNIT FUGITIVE VOC EMISSIONS

Description:

Vinyl Ethers Unit Fugitive VOC Emissions

332 Area Crude Vinyl Ethers Reaction Process

332 Area Vinyl Ethers Distillation Process

332 Area Acetylene Purification Process

01 Vinyl Ethers Unit Fugitive VOC

Controls: None

VE3 VINYL ETHERS UNIT FUGITIVE METHANOL EMISSIONS

Description:

Vinyl Ethers Unit Fugitive Methanol Emissions

332 Area Crude Vinyl Ethers Reaction Process

332 Area Vinyl Ethers Distillation Process

332 Area Acetylene Purification Process

01 Vinyl Ethers Unit Fugitive Methanol

Controls: None

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

TK1313-3004 VOL STORAGE TANK

Description:

Fixed-Roof VOL Storage Tank 313-3004

01 313-3004 VOL Storage Tank

Controls: None

TK2333-3101 THRU 3109 VOL STORAGE TANKS

Description:

Nine Pressurized VOL Storage Tanks 333-3101 through 3109

01 333-3101 Thru 3109 VOL Storage Tanks

Controls: None

Note: Emission unit consists of storage tanks with throughputs that are not directly tied to the production rate of a product. Tanks with throughputs directly tied to the production rate of a product are included in the section of the permit for the production of that product.

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WW1 WASTEWATER TREATMENT OPERATIONS

Description:

Ditches, basins, activated sludge basins, clarifiers, and ancillary facilities associated with wastewater treatment operations

01 Wastewater Treatment Fugitive Emissions

Controls: None

APPLICABLE REGULATIONS: None

1. **Operating Limitations:** None
2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** None
6. **Specific Reporting Requirements:** None
7. **Specific Control Equipment Operating Conditions:** Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

240 240 BUILDING FUGITIVE EMISSIONS

Description:

240 Building Fugitive Emissions

Trains 1 – 4 Reaction Processes

Trains 1 - 3 Drying Processes

01 240 Building Fugitive VOC

Controls: None

02 240 Building Fugitive Benzene

Controls: Leak Detection and Repair

04 240 Building Fugitive Toluene

Controls: None

241 240 BUILDING PROCESS VENTS

Description:

240 Building Process Vents

Trains 1 – 4 Reaction Processes

Trains 1 – 3 Drying Processes

01 240 Building Process Vent Emissions

Controls: 240 Thermal Oxidizer 421-5312 (Selected Process Vents)

None (Other Process Vents)

245 240 THERMAL OXIDIZER PRODUCTS OF COMBUSTION

Description:

240 Thermal Oxidizer 421-5312 Products of Combustion

01 240 Thermal Oxidizer Combustion Product Emissions

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements.*

401 KAR 57:002 (40 CFR 61 Subpart J). *National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene.*

401 KAR 57:002 (40 CFR 61 Subpart V). *National Emission Standard for Equipment Leaks (Fugitive Emission Sources.)*

401 KAR 57:002 (40 CFR 61 Subpart Y). *National Emission Standard for Benzene Emissions from*

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Benzene Storage Vessels.

401 KAR 57:002 (40 CFR 61 Subpart FF). *National Emission Standard for Benzene Waste Operations.*

Benzene Waste Operations:

Pursuant to 40 CFR 61 Subpart F, Section 61.342(a), The permittee is exempt from the control requirements of Sections 61.342(b) and (c), since the total annual benzene quantity from facility waste is less than 10 Mg/yr, as determined according to 61.342(a)(1)-(4) and 61.355(a)(1) and (2).

1. Operating Limitations:

242/3001 Benzene Storage Tank:

242/3002 Benzene Storage Tank:

242/3005 Benzene Storage Tank:

- a) Pursuant to 40 CFR 61 Subpart Y, Section 61.271(c), the storage tank shall be equipped with a closed-vent system designed to collect all benzene vapors from the storage vessel and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background and visual inspections, as determined in Section 61.242-11 of Subpart V. Benzene vapors collected by the closed-vent system shall be controlled by the 421/5312 240 Thermal Oxidizer.
- b) Pursuant to 40 CFR 61 Subpart Y, Section 61.271(c)(3), the specifications and requirements listed in 61.271(c)(1) and (c)(2) for closed vent systems and control devices do not apply during periods of routine maintenance. During periods of routine maintenance, the benzene level in the storage vessels serviced by the control device subject to the provisions of 61.271(c) may be lowered but not raised. Periods of routine maintenance shall not exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). During periods of routine maintenance in excess of 72 hours per year when benzene storage vessel emissions are vented to the Vent-Sorb system, and when the Vent-Sorb unit has been in benzene abatement service for more than 168 hours, then the Vent-Sorb outlet shall be monitored daily using Method 21. If an instrument reading of 550 ppmv or greater is measured, then the carbon drum shall be changed within eight hours.
- c) Pursuant to 40 CFR 61 Subpart A, Section 61.12(c), the permittee shall at all times, including periods of startup, shutdown, and malfunction, maintain and operate the source in a manner consistent with good air pollution control practices for minimizing emissions.

Closed Vent Systems for Capturing Fugitive and Storage Vessel Benzene Emissions:

- d) Pursuant to 40 CFR 61 Subpart V Section 61.242-11(f)(1) and Subpart Y Section 61.271(c), the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

closed-vent system shall be designed to collect all benzene vapors from the storage vessels subject to Subpart Y. The closed-vent system shall be designed for and operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background and visual inspections, as determined in Sections 61.242-11 and 61.245(c). Benzene vapors collected by the closed-vent system shall be controlled by the 421/5312 240 Thermal Oxidizer.

- e) Pursuant to 40 CFR 61 Subpart Y, Section 61.271(c)(3), the specifications and requirements listed in 61.271(c)(1) and (c)(2) for closed vent systems do not apply during periods of routine maintenance. During periods of routine maintenance, the benzene level in the storage vessels serviced by the closed vent system subject to the provisions of 61.271(c) may be lowered but not raised. Periods of routine maintenance shall not exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). Routine maintenance in excess of 72 hours, but not to exceed 170 hours per year, shall be allowed if during such periods the benzene level in the storage vessels may be lowered but not raised, any emissions are routed to the Vent-Sorb system, and the Vent-Sorb outlet is monitored daily (Method 21) for no detectable emissions. If emissions are detected the carbon in the Vent-Sorb system shall be changed.
- f) Pursuant to 40 CFR 61 Subpart V, Section 61.242-11(g), the closed vent system and control device used to comply with Subpart V shall be operated at all times when benzene emissions may be vented to them.
- g) Pursuant to 40 CFR 61 Subpart V, Section 61.242-11(f)(3) and (4), when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. Pursuant to 40 CFR 61 Subpart V, Section 61.242-10(a), and (b), delay of repair is allowed if:
 - 1) As specified in 61.242-10(a), the repair is technically infeasible without a process unit shutdown, and repair of this equipment occurs by the end of the next process unit shutdown; or
 - 2) As specified in 61.242-10(b), the equipment is isolated from the process and does not remain in benzene service.
- h) Pursuant to 40 CFR 61 Subpart A, Section 61.12(c), the permittee shall at all times, including periods of startup, shutdown, and malfunction, maintain and operate the source in a manner consistent with good air pollution control practices for minimizing emissions.

Fugitive VOC Components in Volatile HAP (Benzene) Service:

- i) Pursuant to 40 CFR 61 Subpart V, Section 61.242-1(d), each piece of equipment to which Subpart V applies shall be marked in such a manner that it can be distinguished readily from

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

equipment that is not subject to Subpart V.

- j) Pursuant to 40 CFR 61 Subpart A, Section 61.12(c), the permittee shall at all times, including periods of startup, shutdown, and malfunction, maintain and operate the source in a manner consistent with good air pollution control practices for minimizing emissions.

Pumps in Benzene Service:

- k) Pursuant to 40 CFR 61 Subpart V, Section 61.242-2(c), when a leak is detected for a pump in benzene service, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. Pursuant to 40 CFR 61 Subpart V, Section 61.242-10(a), (b), and (d), delay of repair of leaking pumps is allowed if:
 - 1) The repair is technically infeasible without a process unit shutdown, and repair of this equipment occurs by the end of the next process unit shutdown;
 - 2) The equipment is isolated from the process and does not remain in benzene service; or
 - 3) Repair involves the use of a dual mechanical seal system that includes a barrier fluid system, and the repair is completed as soon as practicable, but not later than 6 months after the leak was detected.
- l) Pursuant to 40 CFR 61 Subpart V, Section 61.246(b), when each leak is detected as specified in 61.242-2, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification may be removed after the equipment has been repaired.
- m) Pursuant to 40 CFR 61 Subpart V, Section 61.242-2(e), each pump that is designated, as described in 61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of 61.242-2(a), (c), and (d), if the requirements of 61.242-2(e)(1) through (3) are met.
- n) Pursuant to 40 CFR 61 Subpart V, Section 61.242-2(f), each pump that is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to the 421/5312 240 Thermal Oxidizer is exempt from the requirements of 61.242-2(a) through (e).

Pressure Relief Devices in Benzene Gas/Vapor Service:

- o) Pursuant to 40 CFR 61 Subpart V, Section 61.242-4(a), except during pressure releases, each pressure relief device in benzene gas/vapor service shall be operated with no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as measured by the method specified in 61.245(c).

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- p) Pursuant to 40 CFR 61 Subpart V, Section 61.242-4(b)(1), after each pressure release, the pressure relief device shall be returned to a condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as soon as practicable, but no later than 5 calendar days after each pressure release, except:
- 1) As specified in 61.242-10(a), the repair is technically infeasible without a process unit shutdown, and repair of this equipment occurs by the end of the next process unit shutdown;
 - 2) As specified in 61.242-10(b), the equipment is isolated from the process and does not remain in benzene service; or
 - 3) As specified in 61.242-4(c), any pressure relief device that is equipped with a closed-vent system capable of capturing and transporting leakage from the pressure relief device to the 421/5312 240 Thermal Oxidizer is exempt from the requirements of 61.242-4(a) and (b).

Sampling Connection Systems in Benzene Service:

- q) Pursuant to 40 CFR 61 Subpart V, Section 61.242-5(a), each sampling connection system in benzene service shall be equipped with a closed-purge system or a closed-vent system, except as follows:

In-situ sampling systems and sampling systems without purges are exempt from the requirements of 61.242-5(a) and (b).

- r) Pursuant to 40 CFR 61 Subpart V, Section 61.242-5(b), each closed-purge system or closed-vent system shall:
- 1) Return the purged process fluid directly to the process line with zero benzene emissions to the atmosphere; or
 - 2) Collect and recycle the purged process fluid with zero benzene emissions to the atmosphere; or
 - 3) Be designed and operated to capture and transport all the purged process fluid to the 421/5312 240 Thermal Oxidizer

Open-Ended Valves or Lines in Benzene Service:

- s) Pursuant to 40 CFR 61 Subpart V, Section 61.242-6(a), each open-ended valve or line in benzene service shall be equipped with a cap, blind flange, plug, or a second valve. The cap blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line. Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed. When a double block and bleed system is being used,

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

the bleed valve or line may remain open during operations that require venting the line between the block valves.

Valves in Benzene Service:

- t) Pursuant to 40 CFR 61 Subpart V, Section 61.242-7(d), when a leak is detected for a valve in benzene service, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described in 61.242-7(e). Pursuant to 40 CFR 61 Subpart V, Section 61.242-10(a), (b), (c) and (e), delay of repair of leaking valves is allowed if:
 - 1) As specified in 61.242-10(a), the repair is technically infeasible without a process unit shutdown, and repair of this equipment occurs by the end of the next process unit shutdown;
 - 2) As specified in 61.242-10(b), the equipment is isolated from the process and does not remain in benzene service;
 - 3) As specified in 61.242-10(c), the permittee demonstrates that emission of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and when repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with 61.242-11; or
 - 4) As specified in 61.242-10(c), delay of repair beyond a process unit shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit shutdown, valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the next process unit shutdown will not be allowed unless the next process unit shutdown occurs sooner than 6 months after the first process unit shutdown.
- u) Pursuant to 40 CFR 61 Subpart V, Section 61.246(b), when each leak is detected as specified in 61.242-7, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 61.242-7(c) and no leak has been detected during those 2 months.

Pressure Relief Devices in Liquid Benzene Service, and Flanges and Other Connectors in Benzene Service:

- v) Pursuant to 40 CFR 61 Subpart V, Section 61.242-8(c), when a leak is detected, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in 61.242-10. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected. First attempts at repair include, but are not limited to, the best practices described in 61.242-7(e). Pursuant to 40 CFR 61 Subpart V, Section 61.242-10(a),

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

and (b), delay of repair is allowed if:

- 1) As specified in 61.242-10(a), the repair is technically infeasible without a process unit shutdown, and repair of this equipment occurs by the end of the next process unit shutdown;
or
 - 2) As specified in 61.242-10(b), the equipment is isolated from the process and does not remain in benzene service.
- w) Pursuant to 40 CFR 61 Subpart V, Section 61.246(b), when each leak is detected as specified in 61.242-8, a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification may be removed after the equipment has been repaired.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Product Accumulator Vessels:

- x) The following equipment has been determined to be product accumulator vessels, as defined in 40 CFR 61 Subpart V:
 - 240/3224 Benzene Product Accumulator Vessel
 - 240/3253 Benzene Product Accumulator Vessel
 - 240/3202 Benzene Product Accumulator Vessel
 - 240/3207 Benzene Product Accumulator Vessel
- y) Pursuant to 40 CFR 61 Subpart V, Section 61.242-9, the above product accumulator vessels in benzene service shall be equipped with a closed-vent system capable of capturing and transporting any leakage from the vessel to the 421/5312 240 Thermal Oxidizer.

2. Emission Limitations:

421/5312 240 Thermal Oxidizer:

- a) Pursuant to 40 CFR 61 Subpart V, Section 61.242-11(c) and Subpart Y, Section 61.271(c)(2), the oxidizer shall be designed and operated to reduce inlet benzene emissions by 95 weight percent or greater on a daily average (24-hour operating day) basis as calculated using the methods specified in Section 6 Specific Reporting Requirements (e)(1) and (e)(2), except as follows:
 - 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdowns or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - 2) Pursuant to 40 CFR 61 Subpart Y, Section 61.271(c)(3), the specifications and requirements listed in 40 CFR 61.271(c)(1) and (c)(2) for closed vent systems and control devices do not apply during periods of routine maintenance. During periods of routine maintenance, the benzene level in the storage vessels serviced by the control device subject to the provisions of 40 CFR 61.271(c) may be lowered but not raised. Periods of routine maintenance shall not exceed 72 hours as outlined in the maintenance plan required by 40 CFR 61.272(c)(1)(iii). Routine maintenance in excess of 72 hours, but not to exceed 170 hours per year, shall be allowed if during such periods the benzene level in the storage vessels may be lowered but not raised, any emissions are routed to the Vent-Sorb system, and the Vent-Sorb outlet is monitored daily (Method 21) for no detectable emissions. If emissions are detected the carbon in the Vent-Sorb system shall be changed.

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3. Testing Requirements:

421/5312 240 Thermal Oxidizer:

Pursuant to 401 KAR 50:045, Section 1, performance testing using the Reference Methods specified in 401 KAR 50:015 shall be conducted once during the permit term.

Fugitive VOC Components in Volatile HAP (Benzene) Service:

Within six months of final permit issuance, permittee shall submit to the Paducah field office, a "Leak Detection" protocol which, at a minimum, shall include:

- a. Description of portable instrument(s) used
- b. Calibration gas(es) used.
- c. Instrument response time.
- d. Response time and response factor.

4. Specific Monitoring Requirements:

421/5312 240 Thermal Oxidizer:

- a) Pursuant to operations plan submitted pursuant to 40 CFR 61 Subpart V, Section 61.242-11(e), the permittee shall continuously monitor the oxidizer combustion temperature. Temperatures shall be recorded at least once every minute, except during periods of monitoring system calibration checks and periods when the monitoring system is malfunctioning or inoperative.

Closed Vent Systems for Capturing Fugitive and Storage Vessel Benzene Emissions:

- b) Pursuant to 40 CFR 61 Subpart V, Sections 61.242-11(f)(2) and (f)(3), the closed vent systems shall be monitored to determine compliance with Section 61.242-11 initially in accordance with 61.105, annually, and at other times requested by the Director. If an instrument reading of 500 ppmv or greater is measured, or a visual inspection indicates evidence of a leak, a leak is detected.

Vent-Sorb System:

- c) During periods of routine maintenance when benzene storage vessel emissions are vented to the Vent-Sorb system, record shall be maintained of all periods when the Vent-Sorb system is utilized. Emissions from the outlet of the system shall be monitored periodically using Method 21, no less than once per 72 operational hours. If an instrument reading of 550 ppmv or greater is measured, then the carbon drum shall be changed.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Pumps in Benzene Service:

- d) Pursuant to 40 CFR 61 Subpart V, Sections 61.242-2(a)(1) and (b)(1), each pump shall be monitored monthly to detect leaks by the method specified in Section 61.245(b), except as provided in Section 61.242-2(d), (e), and (f). If an instrument reading of 10,000 ppmv or greater is measured, a leak is detected.
- e) Pursuant to 40 CFR 61 Subpart V, Sections 61.242-2(a)(2) and (b)(2), each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected.
- f) Pursuant to 40 CFR 61 Subpart V, Section 61.242-2(d), each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of Sections 61.242-2(a) and (b), provided that the operating and monitoring requirements of Section 61.242-2(d)(1) through (6) are met.
- g) Pursuant to 40 CFR 61 Subpart V, Section 61.242-2(e), each pump that is designated, as described in Section 61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the requirements of Section 61.242-2(a), (c), and (d), if the requirements of Section 61.242-2(e)(1) through (3) are met.
- h) Pursuant to 40 CFR 61 Subpart V, Section 61.242-2(f), each pump that is equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to the 421/5312 240 Thermal Oxidizer is exempt from the requirements of Section 61.242-2(a) through (e).

Pressure Relief Devices in Benzene Gas/Vapor Service:

- i) Pursuant to 40 CFR 61 Subpart V, Section 61.242-4(b)(2), no later than 5 calendar days after each pressure release, the pressure relief device shall be monitored to confirm the condition of no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, as measured by the method specified in Section 61.245(c).

Valves in Benzene Service:

- j) Pursuant to 40 CFR 61 Subpart V, Section 61.242-7(a) and (b), and except as provided below and in Section 61.242-7(f), (g), (h), 61.243-1, or 61.242-2, each valve in benzene service shall be monitored monthly to detect leaks using the method specified in Section 61.245(b). If an instrument rating of 10,000 ppmv or greater is measured, a leak is detected.

Pursuant to 40 CFR 61 Subpart V, Section 61.242-7(c), any valve for which a leak is not

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

detected for 2 successive months may be monitored the first month of every quarter, beginning with the next quarter, until a leak is detected. If a leak is detected, the valve shall be monitored monthly until a leak is not detected for 2 successive months.

- k) Pursuant to 40 CFR 61 Subpart V, Section 61.242-7(f), any valve that is designated, as described in 61.246(e)(2), for no detectable emissions, as indicated by an instrument reading of less than 500 ppmv above background, is exempt from the monthly monitoring required by Section 61.242-7(a) if the valve:
 - 1) Has no external actuating mechanism in contact with the process fluid;
 - 2) Is operated with emissions less than 500 ppmv above background, as measured by the method specified in Section 61.245(c); and
 - 3) Is tested for compliance with the 500 ppmv standard initially upon designation, annually, and at other times requested by the Director.
- l) Pursuant to 40 CFR 61 Subpart V, Section 61.242-7(h), any valve that is designated, as described in Section 61.246(f)(2), as a difficult to monitor valve, is exempt from the monthly monitoring required by Section 61.242-7(a) if:
 - 1) The owner or operator demonstrates that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface;
 - 2) The process unit within which the valve is located is an existing process unit; and
 - 3) The owner or operator follows a written plan that requires monitoring of the valve at least once per calendar year.
- m) Pursuant to 40 CFR 61 Subpart V, Section 61.243-1, the permittee may elect to have all valves within the process unit comply with an allowable percentage of valves leaking of equal or less than 2.0 percent. If the owner or operator decides to comply with this alternative, the owner or operator must notify the Director before implementing this alternative standard, and must comply with the requirements specified in Section 61.243-1.
- n) Pursuant to 40 CFR 61 Subpart V, Section 61.243-2, the permittee may elect to have all valves within the process unit comply with one of the alternative work practices specified in 61.243-2(b)(2) and (3). If the owner or operator decides to comply with one of these alternatives, the owner or operator must notify the Director before implementing this alternative standard, and must comply with the requirements specified in 61.243-2.

Pressure Relief Devices in Liquid Benzene Service, and Flanges and Other Connectors in Benzene Service:

- o) Pursuant to 40 CFR 61 Subpart V, Sections 61.242-8(a) and (b), pressure relief devices in liquid

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

benzene service, and flanges and other connectors in benzene service shall be monitored within 5 days by the method specified in Section 61.245(b) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. If an instrument reading of 10,000 ppmv or greater is measured, a leak is detected.

5. Specific Recordkeeping Requirements:***Benzene Waste Operations:***

- a) Pursuant to 40 CFR 61 Subpart FF, Sections 61.355(a)(1) and (2), the permittee shall calculate and record the total annual benzene quantity from facility waste using the methods specified in Section 61.355(a)(1), (a)(2), (b), and (c). Calculation must be performed at least once each year and whenever there is a process change that could cause the quantity to increase to greater than or equal to 10 Mg/yr.
- b) Pursuant to 40 CFR 61 Subpart FF, Section 61.356(b), the permittee shall maintain records that identify each waste stream at the facility subject to Subpart FF, and indicate whether or not the waste stream is controlled for benzene emissions.
- c) Pursuant to 40 CFR 61 Subpart FF, Section 61.356(b)(1), for each waste stream not controlled for benzene the permittee shall keep records of test results, measurements, and calculations used to determine the waste stream properties specified in Section 61.356(b)(1) (data used to determine total annual benzene quantity from benzene waste).
- d) Pursuant to 40 CFR 61 Subpart FF, Section 61.356(b)(5), for each facility where the annual waste quantity for process unit turnaround waste is determined according to 40 CFR 63.155(b)(4), the permittee shall keep records of process unit turnaround waste specified in 40 CFR 63.156(b)(5).
- e) Pursuant to 40 CFR 61 Subpart FF, Section 61.356(a), the permittee shall retain records required by 40 CFR 61.356 in a readily accessible location at the facility site for a period of at least five years from the date of the record.

242/3001 Benzene Storage Tank:***242/3002 Benzene Storage Tank:******242/3005 Benzene Storage Tank:***

- f) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(b), the permittee shall keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

storage vessel. This record shall be kept as long as the storage vessel is in operation.

- g) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(c)(3)(i)(C), the permittee shall maintain a continuous record of the liquid level in the storage vessel during all times that the closed vent system and control device does not meet the specifications of Section 61.271(c) due to maintenance. Pumping records (simultaneous input and output) may be substituted for records of the liquid level.
- h) During periods when emissions are vented to the Vent-Sorb system, the permittee shall maintain a record of the Method 21 monitoring results at the Vent-Sorb system outlet.
- i) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(a), the permittee shall keep copies of all reports and records required by Subpart Y for at least five years, with the exception of records of tank dimension and capacity, which must be kept for as long as the tank is operating.

421/5312 240 Thermal Oxidizer:

- j) Pursuant to 40 CFR 61 Subpart A, Section 61.14(f), the permittee shall record and retain the following records for the oxidizer temperature monitoring system:
 - 1) The permittee shall record the oxidizer combustion temperature.
 - 2) The permittee shall maintain records of temperature monitoring system calibration checks.
 - 3) The permittee shall maintain records of the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative.
- k) In order to demonstrate compliance with 40 CFR 61 Subpart V, Section 61.242-11(c) and Subpart Y, Section 61.271(c)(2), if the combustion temperature falls below 1390° F for 15 minutes or longer, the permittee shall calculate and retain records of the weight percent benzene reduction for the 24-hour operating day period inclusive of the incident. Pursuant to 40 CFR 61 Subpart A, Section 61.14(e), monitoring data recorded during periods of unavoidable monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in any data average.
- l) Pursuant to 40 CFR 61 Subpart V, Section 61.246(d)(4), the permittee shall record periods when the closed-vent system and oxidizer are not operated as designed and retain records in a readily accessible location.
- m) Pursuant to 40 CFR 61 Subpart V, Sections 61.246(d)(1) and (2), the permittee shall record and keep in a readily accessible location detailed schematics, design specifications, piping and instrument diagrams, and dates and descriptions of any changes in the design specifications for the oxidizer.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- n) Pursuant to 40 CFR 61 Subpart V, Section 61.246(d)(3), the permittee shall record and keep in a readily accessible location a description of the parameters monitored, as required by 61.242-11(e), and an explanation of why the parameters were selected for monitoring.
- o) Pursuant to 40 CFR 61 Subpart V, Section 61.246(d)(5), the permittee shall record and keep in a readily accessible location the dates of startups and shutdowns of the closed-vent system and oxidizer.
- p) Pursuant to 401 KAR 52:020 and 40 CFR 61 Subpart A, Section 61.13(c), the permittee shall maintain at the source for at least five years, and make available upon request to the division, records of emission test results and other data needed to determine emissions.
- q) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(c)(1), a copy of the Operating Plan required by Section 61.272(c)(1) shall be kept in a readily accessible location for as long as the closed vent system and oxidizer are in use. The Operating Plan shall include the information specified in Section 61.272(c)(1), including: documentation demonstrating that the oxidizer achieves the required control efficiency; a description of the parameter or parameters to be monitored to ensure that the oxidizer is operated and maintained in conformance with its design and an explanation of the criteria used for selection of that parameter; and a maintenance plan for the system. As specified by Section 61.272(c)(1)(iii), the maintenance plan shall require that the system be out of compliance with Section 61.271(c) for no more than 72 hours per year. Bypass of the oxidizer for periods of routine maintenance in excess of 72 hours, but not to exceed 170 hours per year, shall be allowed if during such periods the benzene level in the storage vessels may be lowered but not raised, any emissions are routed to the Vent-Sorb system, and the Vent-Sorb outlet is monitored daily (Method 21) for no detectable emissions. If emissions are detected the carbon in the Vent-Sorb system shall be changed.
- r) Pursuant to Agreed Orders DAQ-19704-106 and DAQ-2165-037, the Operating Plan described above must include an education and training program for employees which explains and insures that the proper maintenance and operating procedures are followed for the oxidizer.
- s) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(a), the permittee shall maintain copies of all reports and records required by Subpart Y for at least five years, with the exception of the Operating Plan, which must be kept for as long as the control device is operating.
- t) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(c)(2), the permittee shall maintain records of measured values of the monitored parameters specified in the operating plan required by Section 61.272(c) for at least five years.
- u) Pursuant to 40 CFR 61 Subpart Y, Section 61.276(c)(3)(i)(A) and (B), the permittee shall maintain records of maintenance performed in accordance with the maintenance plan required by

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Section 61.272(c) for at least five years. Records shall include the beginning and ending times and dates of periods when control requirements of 61.271(c) were not met due to maintenance.

Closed Vent Systems for Capturing Fugitive and Storage Vessel Benzene Emissions:

- v) Pursuant to 40 CFR 61 Subpart V, Section 61.246(d)(4), the permittee shall record periods when the closed-vent system is not operated as designed and retain such records in a readily accessible location.
- w) Pursuant to 40 CFR 61 Subpart V, Sections 61.246(d)(1) and (2), the permittee shall record and keep in a readily accessible location detailed schematics, design specifications, piping and instrument diagrams, and dates and descriptions of any changes in the design specifications for the closed vent system.
- x) Pursuant to 40 CFR 61 Subpart V, Section 61.246(d)(5), the permittee shall record and keep in a readily accessible location the dates of startups and shutdowns of the closed-vent system and oxidizer.

Fugitive VOC Components Not in Volatile HAP (Benzene) Service:

- y) Pursuant to 40 CFR 61 Subpart V, Sections 61.246(i)(2) and (j), for equipment (as defined in Subpart V) in the 240 Building that is not in benzene service, an analysis demonstrating that such equipment is not in benzene service shall be recorded in a log that is kept in a readily accessible location. The record shall include information and data used to demonstrate that the equipment is not in benzene service.

Fugitive VOC Components in Volatile HAP (Benzene) Service:

- z) Pursuant to 40 CFR 61 Subpart V, Section 61.246, the following records and information shall be recorded in a log that is kept in a readily accessible location:
 - 1) As required by Section 61.246(e)(1), a list of identification numbers of equipment (except welded fittings) subject to Subpart V.
 - 2) As required by Section 61.246(e)(2), a list of identification numbers of equipment that the permittee elects to designate for no detectable emissions, as indicated by an instrument reading less than 500 ppmv above background. The designation of this equipment as no detectable emissions must be signed by the owner or operator.
 - 3) As required by Section 61.246(e)(5), a list of identification numbers of equipment in vacuum service.
 - 4) As required by Section 61.246(e)(4), for equipment in benzene service designated as no detectable emissions, records of the dates, background level, and maximum instrument reading measured during each compliance test.
 - 5) As required by Section 61.246(e)(3), a list of identification numbers for pressure relief devices

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- in benzene gas/vapor subject to the requirements of Section 61.242-4(a).
- 6) As required by Section 61.246(e)(4), for pressure relief devices in benzene gas/vapor service, records of the dates, background level, and maximum instrument reading measured during each compliance test.
 - 8) As required by Section 61.246(f)(2), for valves in benzene service designated as difficult to monitor under Section 61.242-7(h): a list of identification numbers for valves designated as difficult to monitor; an explanation of why the valve is difficult to monitor; and the planned schedule for monitoring each difficult to monitor valve.
 - 9) As required by Section 61.246(g), for all valves complying with Section 61.243-2 (skip period leak detection and repair), records of the monitoring schedule and the percent of valves found leaking during each monitoring period.
 - 10) As required by Section 61.246(c), when each leak is detected as specified in Section 61.242-2, 61.242-3, 61.242-7, 61.242-8, and 61.135, the following information shall be recorded and retained for five years:
 - (i) The instrument and operators' identification numbers and equipment identification number.
 - (ii) The date the leak was detected and the dates of each attempt to repair the leak.
 - (iii) Repair methods applied in each attempt to repair the leak.
 - (iv) "Above 10,000" if the maximum instrument reading measured by the methods specified in Section 61.245(a) after each repair attempt is equal to or greater than 10,000 ppmv.
 - (v) "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
 - (vi) The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.
 - (vii) The expected date of successful repair of the leak if a leak is not repaired within 15 calendar days.
 - (viii) Dates of process unit shutdowns that occur while the equipment is unrepaired.
 - (ix) The date of successful repair of the leak.

6. Specific Reporting Requirements:***Benzene Waste Operations:***

- a) Pursuant to 40 CFR 61 Subpart FF, Section 61.357(c), the permittee shall submit an annual report updating the information specified in Section 61.357(a)(1) - (3). Report shall be submitted with the Annual Compliance Certification (Form DEP7007CC) to the Paducah Regional Office. If information is not changed from the previous year, a statement to that effect may be submitted.
- b) Pursuant to 40 CFR 61 Subpart FF, Section 61.357(c), the permittee shall submit a report updating the information specified in Section 61.357(a)(1) - (3) whenever there is a change in the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

process generating the waste that could cause the total annual benzene quantity from facility waste to increase to 10 Mg/yr or greater.

421/5312 240 Thermal Oxidizer:

- c) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in emissions exceeding the daily average standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- d) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in emissions exceeding the daily average standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).
- e) Pursuant to 40 CFR 61 Subpart Y, Section 61.275(e), the permittee shall submit Quarterly Excess Emission and Excursion Reports to the Division's Paducah Regional office for each calendar quarter. Reports shall identify each occurrence that results in excess emissions or excursion. Excess emissions are emissions that occur at any time when compliance with the specifications and requirements of Section 61.271(c) are not achieved, as evidenced by the monitored oxidizer combustion temperature, as specified below.
 - 1) If the monitored oxidizer combustion temperature is greater than or equal to 1390° F, the oxidizer is evidenced to be achieving the required destruction efficiency.
 - 2) When the monitored oxidizer combustion temperature drops below 1390 F for 15 minutes or longer, the permittee shall prepare a mathematical demonstration to determine the daily average weight percent benzene reduction for the 24-hour operating day inclusive of the incident. Pursuant to 40 CFR 61 Subpart A, Section 61.14(e), monitoring data recorded during periods of unavoidable monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in any data average. If the calculated operating day average benzene destruction efficiency is greater than or equal to 95 weight percent, the oxidizer has been in compliance for the period in question. If the calculated daily average benzene destruction efficiency is less than 95 weight percent, excess emissions have occurred. The demonstration shall use the following destruction efficiencies:

Combustion Temperature	T range	Benzene Destruction Efficiency
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SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(Deg. F)	(minutes)	(%)
≥ 1500	T1	100
$1400 \geq T < 1500$	T2	97
$1390 \geq T < 1400$	T3	95
< 1390	T4	0

$$\text{Control efficiency} = (100 \times \Sigma T1 + 97 \times \Sigma T2 + 95 \times \Sigma T3) / (T1 + T2 + T3)$$

- f) Pursuant to 40 CFR 61 Subpart Y, Section 61.275(e)(2) and (3), Quarterly Excess Emission and Excursion Reports shall as a minimum contain the following:
- 1) Identification of the stack and other emission points where the excess emissions occurred;
 - 2) A statement of whether or not the owner or operator believes a control system malfunction has occurred;
 - 3) If the owner or operator states that a control system malfunction has occurred, the following information as a minimum is also to be included:
 - i) Time and duration of the control system malfunction as determined by continuous monitoring data, or the inspection or monitoring done in accordance with the Operating Plan required by Section 61.271(c).
 - ii) Cause of excess emissions.
 - 4) All periods of excursion, an excursion is defined as any period of 15 minutes or longer where the combustion temperature is less than 1390° F.

Fugitive VOC Components in Volatile HAP (Benzene) Service:

- g) Pursuant to 40 CFR 61 Subpart V, Section 61.247(b), the permittee shall submit semiannual reports to the Paducah Regional Office by July 28 and January 28 of each year. The permittee may shift to reporting to coincide with the compliance certification described in **General Condition F.5** upon approval of the regional office. The semiannual reports must contain the following information:
- 1) Process unit identification.
 - 2) For each month during the semiannual reporting period:
 - i) The number of valves for which leaks were detected as described in Section 61.242-7(b) and Section 61.243-2.
 - ii) The number of valves for which leaks were not repaired as required in Section 61.242-7(d).
 - iii) The number of pumps for which leaks were detected as described in Section 61.242-2(b) and (d)(6).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- iv) The number of pumps for which leaks were not repaired as required in Section 61.242-2(c) and (d)(6).
- vii) The facts that explain any delay of repairs and, where appropriate, why a process unit shutdown was technically infeasible.
- 3) Dates of process unit shutdowns which occurred within the semiannual reporting period.
- 4) Revisions to items reported in the initial report required by 40 CFR61.247(a) if changes have occurred since the initial report or subsequent revisions to the initial report.
- 5) The results of all performance tests and monitoring to determine compliance with no detectable emissions and with 40 CFR61.243-1 and 40 CFR61.243-2 conducted within the semiannual reporting period.

7. Specific Control Equipment Operating Conditions:

421/5312 240 Thermal Oxidizer:

- a) Pursuant to 40 CFR 61 Subpart V, Section 61.242-11(g), the closed vent system and control device used to comply with Subpart V shall be operated at all times when emissions may be vented to them.
- b) Pursuant to 40 CFR 61 Subpart Y, Section 61.272(c)(2), the permittee must operate, monitor, and maintain the closed vent system and oxidizer in accordance with the operating plan submitted under Section 61.272(c)(1).
- c) Pursuant to 40 CFR 61 Subpart A, Section 61.12(c), the permittee shall at all times, including periods of startup, shutdown, and malfunction, maintain and operate the oxidizer in a manner consistent with good air pollution control practices for minimizing emissions.
- d) Pursuant to 40 CFR 61 Subpart A, Section 61.14(b), the permittee shall maintain and operate the oxidizer temperature monitoring system as specified in Subparts V and Y, and in a manner consistent with good air pollution control practices for minimizing emissions. Any unavoidable breakdowns or malfunctions of the temperature monitoring system shall be repaired or adjusted as soon as practicable after its occurrence.
- e) Pursuant to 40 CFR 61 Subpart V, Section 61.242-11(c) and Subpart Y, Section 61.271(c)(2), the oxidizer shall be designed and operated to reduce inlet benzene emissions by 95 weight percent or greater on a daily average basis.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

361 236 BUILDING PROCESS VENT ORGANICS

Description:

236 Building Process Vent Organic Emissions
236 Building Batch Production Processes

01 236 Building Process Vent Organics

Controls: 240 Thermal Oxidizer 421-5312 (selected process vents)
Gateway Thermal Oxidizer (selected process vents)
Scrubber 236/5306 (Dryer 236/3501)
Scrubber 236/5336 (Dryer 236/3503)
Scrubber 236/3402 (state-origin control requirement)
Scrubber 236/5375 (state-origin control requirement)
None (other process vents)

362 DRYER 236-3501 PROCESS PARTICULATE

Description:

Dryer 236-3501 Process Particulate Emissions

01 Dryer 236-3501 Process PM Emissions

Controls: Scrubber 236/5306

363 DRYER 236-3501 PRODUCTS OF COMBUSTION

Description:

Dryer 236-3501 Products of Combustion

01 Dryer 236-3501 Combustion Product Emissions

Controls: Scrubber 236/5306

364 DRYER 236-3503 PROCESS PARTICULATE

Description:

Dryer 236-3503 Process Particulate Emissions

01 Dryer 236-3503 Process PM Emissions

Controls: Scrubber 236/5336

365 DRYER 236-3503 PRODUCTS OF COMBUSTION

Description:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Dryer 236-3503 Products of Combustion

01 Dryer 236-3503 Combustion Product Emissions

Controls: Scrubber 236/5336

36F 236 BUILDING FUGITIVE EMISSIONS

Description: 236 Building Fugitive Emissions

236 Building Batch Production Processes

01 236 Building Fugitive VOC

Controls: None

02 236 Building Fugitive Styrene

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements.*

401 KAR 61:020. *Existing Process Operations* constructed prior to July 2, 1975.

401 KAR 59:005. *General Provisions.*

401 KAR 59:010. *New Process Operations* constructed after July 2, 1975.

401 KAR 60:005 (40 CFR 60 Subpart Kb) *Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984.*

(State Origin Requirement) 401 KAR 63:021. *Existing sources emitting toxic air pollutants.*

1. **Operating Limitations:** None

2. **Emission Limitations:**

236/3701 Cyclone for Dryer 236/3501 (controlled by Scrubber 236/5306):

- a) Pursuant to 401 KAR 61:020, Section 3(2)(a), particulate emissions shall not exceed 2.58 lbs/hr, averaged over a period that covers a complete operation of the batch process, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method: The permittee shall retain initial permit calculations or test results that indicating that uncontrolled particulate emissions are less than the 401 KAR 61:020 allowable emission rate.

- b) As Scrubber 236/5306 is a common control systems for new and existing equipment, visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - 2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

- 1) During normal operation of the emission unit no compliance demonstration is necessary.
- 2) If the emission unit is in operation during any period of malfunction of the scrubber, the permittee shall determine compliance through maintenance of the records required by Item e. under **Section 5. Specific Recordkeeping Requirements below.**

236/3708 Cyclone for Dryer 236/3503 (controlled by Scrubber 236/5336):

- c) Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions shall not exceed 2.34 lbs/hr, averaged over a period that covers a complete operation of the batch process, except as follows: Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall retain initial permit calculations or test results indicating that uncontrolled particulate emissions are less than the 401 KAR 59:010 allowable emission rate.

- d) Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - 2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

- 1) During normal operation of unit no compliance demonstration is necessary.
- 2) If the emission unit is in operation during any period of malfunction of the scrubber, the permittee shall determine compliance through maintenance of the records required by Item e. under **Section 5. Specific Recordkeeping Requirements below.**

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

236/3701 Cyclone for Dryer 236/3501:

- a) The permittee shall retain initial permit calculations or test results indicating that uncontrolled particulate emissions are less than the 401 KAR 61:020 allowable emission rate.

236/3708 Cyclone for Dryer 236/3503:

- b) The permittee shall retain initial permit calculations or test results indicating that uncontrolled particulate emissions are less than the 401 KAR 59:010 allowable emission rate.
- c) Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the scrubber.

Both Dryers:

- d) During all periods of malfunction of any of the scrubbers, if any of the emission units are operating, a log with records every four (4) hours of the following information shall be kept:
 - i Results from a Reference Method 9 observation, **OR**;
 - ii. Whether any air emissions were visible.

If visible emissions are observed, the permittee shall record the following information:

- iii. Whether the visible emissions were normal for the process.
 - iv. The color of the emissions and whether the emissions were light or heavy.
 - v. The cause of the abnormal visible emissions.
 - vi. Any corrective actions taken.
- e) All maintenance activities performed at the scrubbers.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

236/3006 Dryer Feed Tank:

- f) Pursuant to 40 CFR 60 Subpart Kb, Sections 60.116b(a) and (b), the permittee shall maintain readily accessible records showing the dimensions of the storage tank and an analysis showing the capacity of the tank. The records shall be kept for the life of the tank.

(State Origin Requirements)

236/3402 Scrubber:

236/5375 Scrubber:

421/5312 240 Thermal Oxidizer:

Gateway Thermal Oxidizer:

- g) The permittee shall maintain onsite and make readily available for inspection the Environmental Compliance Task Manuals addressing each air pollution control device listed above.
- h) The permittee shall record and retain records of maintenance performed on each air pollution control device listed above.
- i) The permittee shall maintain monthly records of operation, routine and nonroutine maintenance, duration and cause of any shut-downs.
- j) Production records and emission estimate for each product controlled by the air pollution control devices listed above.

6. Specific Reporting Requirements:

236/3701 Cyclone for Dryer 236/3501:

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

236/3708 Cyclone for Dryer 236/3503:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- d) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).
- e) Pursuant to 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of any modification (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.

(State Origin Requirements)

- f) Pursuant to 401 KAR 50:055, Section 1(2) and with respect to 401 KAR 63:021, the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- g) Pursuant to 401 KAR 50:055, Section 1(3) and with respect to 401 KAR 63:021, if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. Specific Control Equipment Operating Conditions: (State Origin Requirements)

236/3402 Scrubber:

236/5375 Scrubber:

421/5312 240 Thermal Oxidizer:

Gateway Thermal Oxidizer:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Pursuant to 401 KAR 50:035 Section 1 (7)(b) any control equipment or procedures previously used to achieve compliance with a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022 shall not be removed or altered unless prior approval is obtained from the division. Control equipment may be removed upon approval by the division of calculations that demonstrate that emissions of Toxic Air Pollutants would not have exceeded an ASL level as defined in the former 401 KAR 63:022, Appendix B. Control equipment may also be removed upon the division's approval of results from an approved Air Quality Model, that demonstrates that Maximum ground level concentrations would not have exceed the Threshold Ambient Limits contained in the former 401 KAR 63:022, Appendix B

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdowns or malfunctions which temporarily exceed a standard formerly contained in the former 63:021 or 401 KAR 63:022 shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the division makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall maintain records of batch production in the 236 Building. During periods of operation where the controls were required to comply with or preclude the requirements of the former 401 KAR 63:021 or 401 KAR 63:022, the permittee shall record monthly and maintain monthly records of the operation, routine and nonroutine maintenance and the duration and cause of any shut-downs each of the scrubbers listed above. The operation and maintenance of the 421/5312 240 Thermal Oxidizer and Gateway Thermal Oxidizer are described elsewhere in this permit.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

151 315 BUILDING PROCESS VENT ORGANICS

Description:

315 Building Process Vent Organic Emissions

315 Building Batch Production Processes

315 Building Process Vent Organics

Controls: 315 Thermal Oxidizer 421-5311 (selected process vents)
None (other process vents)

152 315 THERMAL OXIDIZER PRODUCTS OF COMBUSTION

Description:

315 Thermal Oxidizer 421-5311 Products of Combustion

315 Thermal Oxidizer Combustion Product Emissions

Controls: None

153 315 BUILDING FUGITIVE EMISSIONS

Description:

315 Building Fugitive Emissions

315 Building Batch Production Processes

01 315 Building Fugitive VOC

Controls: None

02 315 Building Fugitive Toluene

Controls: None

03 315 Building Fugitive Vinyl Acetate

Controls: None

04 315 Building Fugitive Maleic Anhydride

Controls: None

APPLICABLE REGULATIONS:

(State Origin Requirement) 401 KAR 63:021. *Existing sources emitting toxic air pollutants.*

1. Operating Limitations: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. **Emission Limitations:** None
3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:** (State Origin Requirements)
 - a) The permittee shall maintain onsite and make readily available for inspection the Environmental Compliance Task Manual addressing the 315 Thermal Oxidizer.
 - b) The permittee shall record and retain records of routine and nonroutine maintenance performed on the 315 Thermal Oxidizer.
 - c) The permittee shall log daily, for each day that the 315 Building processes are in operation, whether the 315 Thermal Oxidizer was operating.
 - d) Production records and emission estimates for each product controlled by the 315 Thermal Oxidizer.
6. **Specific Reporting Requirements:** (State Origin Requirements)
 - a) Pursuant to 401 KAR 50:055, Section 1(2) and with respect to 401 KAR 63:021, the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
 - b) Pursuant to 401 KAR 50:055, Section 1(3) and with respect to 401 KAR 63:021, if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).
7. **Specific Control Equipment Operating Conditions:** (State Origin Requirements)

421/5311 315 Thermal Oxidizer: Pursuant to 401 KAR 50:035 Section 1 (7)(b) any control equipment or procedures previously used to achieve compliance with a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022 shall not be removed or altered unless prior approval is

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

obtained from the division. Control equipment may be removed upon approval by the division of calculations that demonstrate that emissions of Toxic Air Pollutants would not have exceeded an ASL level as defined in the former 401 KAR 63:022, Appendix B. Control equipment may also be removed upon the division's approval of results from an approved Air Quality Model, that demonstrates that Maximum ground level concentrations would not have exceed the Threshold Ambient Limits contained in the former 401 KAR 63:022, Appendix B

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdowns or malfunctions which temporarily exceed a standard formerly contained in the former 63:021 or 401 KAR 63:022 shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the division makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall maintain records of batch production in the 315 Building. During periods of operation where controls were required to comply with or preclude the requirements of the former 401 KAR 63:021 or 401 KAR 63:022, the permittee shall record and maintain records of whether the 315 Thermal Oxidizer was operating.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

001 200 BUILDING PROCESS VENT ORGANICS

Description:

200 Building Process Vent Organic Emissions

200 Building Batch Production Processes

01 200 Building Process Vent Organics

Controls: None

002 STEAM SPRAY DRYER PROCESS PARTICULATE

Description:

Steam Spray Dryer 200-3501 Process Particulate Emissions

01 Dryer 200-3501 Process PM Emissions

Controls: Baghouse 200-3641

003 GAS SPRAY DRYER PROCESS PARTICULATE

Description:

Gas Spray Dryer 200-3502 Process Particulate Emissions

01 Dryer 200-3502 Process PM Emissions

Controls: Venturi Scrubber 200/5369

004 GAS SPRAY DRYER PRODUCTS OF COMBUSTION

Description:

Gas Spray Dryer 200-3502 Products of Combustion

01 Dryer 200-3502 Combustion Product Emissions

Controls: Venturi Scrubber 200/5369

005 200 BUILDING FUGITIVE EMISSIONS

Description:

200 Building Fugitive Emissions

200 Building Batch Production Processes

01 200 Building Fugitive VOC

Controls: None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

02 200 Building Fugitive Vinyl Acetate

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 59:005. *General Provisions*

401 KAR 59:010. *New Process Operations* constructed after July 2, 1975.

1. **Operating Limitations**: None

2. **Emission Limitations**:

Cyclones 200/3701, 200/3702, and 200/3717

(Central Vacuum System for Steam Spray Dryer 200/3501):

- a) Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions shall not exceed 2.34 lbs/hr averaged over a period that covers a complete operation of the batch process, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The baghouse shall control particulate emissions and be operated in accordance with manufacturer's specifications and/or standard operating procedures at all times any of the emissions units listed above are in operation.

- b) Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis, except as follows:

1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and

2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The baghouse shall control particulate emissions and be

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

operated in accordance with manufacturer's specifications and/or standard operating procedures at all times any of the emissions units listed above are in operation.

*Cyclones 200/3705, 200/3712, and 200/3718
(Central Vacuum System for Gas Spray Dryer 200/3502):*

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions shall not exceed 2.59 lbs/hr averaged over a period that covers a complete operation of the batch process, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The scrubber shall control particulate emissions and be operated in accordance with manufacturer's specifications and/or standard operating procedures at all times any of the emissions units listed above are in operation.

- d) Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis, except as follows:

- 1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
- 2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The scrubber shall control particulate emissions and be operated in accordance with manufacturer's specifications and/or standard operating procedures at all times any of the emissions units listed above are in operation.

3. Testing Requirements:

*Cyclones 200/3701, 200/3702, and 200/3717
(Central Vacuum System for Steam Spray Dryer 200/3501):*

*Cyclones 200/3705, 200/3712, and 200/3718
(Central Vacuum System for Gas Spray Dryer 200/3502):*

An EPA Method 9 test shall be conducted on the control devices controlling the cyclones at least once every three months during the term of this permit

4. Specific Monitoring Requirements:

Baghouse 200/3641: For purposes of demonstrating continuing compliance with the opacity and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

particulate emission limits contained in 401 KAR 59:010, the permittee shall monitor and maintain daily records of the pressure drop across the baghouse.

Venturi Scrubber 200/5369: For purposes of demonstrating continuing compliance with the opacity and particulate emission limits contained in 401 KAR 59:010, the permittee shall monitor and maintain daily records of the water pressure drop across the scrubber.

5. Specific Recordkeeping Requirements:

Cyclones 200/3701, 200/3702, and 200/3717
(Central Vacuum System for Steam Spray Dryer 200/3501)

- a) The permittee shall retain initial and revised calculations of the particulate emission rate.
- b) The permittee shall record and retain records of the results of all EPA Method 9 tests performed.
- c) Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process or air pollution control equipment.

Cyclones 200/3705, 200/3712, and 200/3718
(Central Vacuum System for Gas Spray Dryer 200/3502):

- d) The permittee shall retain initial and revised calculations of the particulate emission rate.
- e) The permittee shall record and retain records of the results of all EPA Method 9 tests performed.
- f) The permittee shall maintain the following records at the plant:
 - 1) Pressure drop across the venturi scrubber;
 - 2) All routine and non-routine maintenance activities;
 - 3) For all periods when records for pressure drop are unavailable, permittee shall document the duration and cause of instrument outages (i.e. calibration, maintenance, malfunction).
- g) Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process or air pollution control equipment.

6. Specific Reporting Requirements:

Cyclones 200/3701, 200/3702, and 200/3717
(Central Vacuum System for Steam Spray Dryer 200/3501):

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

*Cyclones 200/3705, 200/3712, and 200/3718
(Central Vacuum System for Gas Spray Dryer 200/3502):*

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard or particulate emissions exceeding standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).
- c) Pursuant to 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of any modification (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.

7. Specific Control Equipment Operating Conditions:

*Baghouse 200/3641:
Venturi Scrubber 200/5369:*

- a) The pollution control devices listed above shall be maintained and operated in accordance with good operating procedures as described by the Environmental Compliance Task Manual retained at the source.
- b) The permittee shall retain the Environmental Compliance Task Manuals addressing the air pollution control devices listed above.
- c) The permittee shall record and retain records of maintenance performed on the air pollution control devices listed above.
- d) The scrubber shall operate at a minimum of 4 inches water pressure drop. (Daily average)

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

341 334 BUILDING PROCESS VENTS

Description:

334 Building Process Vent Emissions

PVP-Iodine Production Process

01 334 Building Process Vent Emissions

Controls: Scrubber 334/3231

Cyclone 334/3716

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 59:005. *General Provisions*

401 KAR 59:010. *New Process Operations constructed after July 2, 1975.*

(State Origin Requirement) 401 KAR 63:021 *Existing sources emitting toxic air pollutants.*

1. Operating Limitations: None

2. Emission Limitations:

334/3717 Ribbon Blender

(Controlled by 334/3716 Cyclone and 334/3231 Scrubber):

- a) Pursuant to 401 KAR 59:010, Section 3(2), particulate emissions shall not exceed 2.34 lbs/hr averaged over a period that covers a complete operation of the batch process, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall retain initial permit calculations or test results that indicating that uncontrolled particulate emissions are less than the 401 KAR 59:010 allowable emission rate.

- b) Pursuant to 401 KAR 59:010, Section 3(1)(a), visible emissions shall not equal or exceed 20% opacity on a 6-minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown; and
 - 2) Pursuant to 401 KAR 50:055, Section 1(1), visible emissions due to shutdown or malfunctions which temporarily exceed the 6-minute standard shall not be deemed in violation of such

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method:

- 1) During normal operation of the cyclone and scrubber no compliance demonstration is necessary.
- 2) If the dryer is in operation during any period of malfunction of the cyclone or the scrubber, the permittee shall determine compliance through maintenance of the records required by Item c. under **Section 5. Specific Recordkeeping Requirements below.**

3. **Testing Requirements:** None
4. **Specific Monitoring Requirements:** None
5. **Specific Recordkeeping Requirements:**

334/3717 Ribbon Blender

(Controlled by 334/3716 Cyclone and 334/3231 Scrubber):

- a) The permittee shall retain initial permit calculations or test results that indicating that uncontrolled particulate emissions are less than the 401 KAR 59:010 allowable emission rate.
- b) Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record and retain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the process equipment or air pollution control equipment.
- c) During all periods of malfunction of the scrubber or cyclone, if any of the process units are in operation, a log with records every four (4) hours of the following information shall be kept:
 - i Results from a Reference Method 9 observation, **OR**;
 - ii Whether any air emissions were visible

If visible emissions are observed, the permittee shall record the following information:

- iii. Whether the visible emissions were normal for the process.
- iv. The color of the emissions and whether the emissions were light or heavy.
- v. The cause of the abnormal visible emissions.
- vi. Any corrective actions taken.

334/3231 PVP-I Scrubber:

(State Origin Requirements)

- d) The permittee shall maintain monthly records of operation, routine and nonroutine maintenance, duration and cause of any shut-downs..

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- e) Production records and emission estimates for each product controlled by the scrubber.

6. Specific Reporting Requirements:

334/3717 Ribbon Blender

(Controlled by 334/3716 Cyclone and 334/3231 Scrubber):

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard or particulate emissions exceeding the standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).
- c) Pursuant to 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of any modification (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.

(State Origin Requirements)

- d) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- e) Pursuant to 401 KAR 50:055, Section 1(3) and with respect to 401 KAR 63:021, if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in emissions exceeding a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Section 1(3).

7. Specific Control Equipment Operating Conditions:

334/3716 Cyclone:

334/3231 Scrubber:

- a) The pollution control devices shall be maintained and operated in accordance with good operating procedures as described by the Environmental Compliance Task Manual retained at the source.
- b) The permittee shall retain the Environmental Compliance Task Manual addressing the air pollution control devices listed above.
- c) The permittee shall record and retain records of maintenance performed on the air pollution control devices listed above.
- d) **(State Origin Requirements)** Pursuant to 401 KAR 50:035 Section 1 (7)(b) any control equipment or procedures previously used to achieve compliance with a standard formerly contained in 401 KAR 63:021 or 401 KAR 63:022 shall not be removed or altered unless prior approval is obtained from the division. Control equipment may be removed upon approval by the division of calculations that demonstrate that emissions of Toxic Air Pollutants would not have exceeded an ASL level as defined in the former 401 KAR 63:022, Appendix B. Control equipment may also be removed upon the division's approval of results from an approved Air Quality Model, that demonstrates that Maximum ground level concentrations would not have exceed the Threshold Ambient Limits contained in the former 401 KAR 63:022, Appendix B

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdowns or malfunctions which temporarily exceed a standard formerly contained in the former 401 KAR 63:021 or 401 KAR 63:022 shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the division makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall maintain records of batch production in the 334 Building. During periods of operation where controls were required to comply with or preclude the requirements of the former 401 KAR 63:021 or 401 KAR 63:022, the permittee shall record and maintain a monthly log of operation, routine and nonroutine maintenance, duration and cause of any shut-downs of the scrubber.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

261 326 AREA PROCESS VENT EMISSIONS

Description:

326 Area Process Vent Emissions

326 Area Batch Production Processes

01 326 Area Process Vent Emissions

Controls: None

262 326 AREA FUGITIVE EMISSIONS

Description:

326 Area Fugitive Emissions

326 Area Batch Production Processes

01 326 Area Fugitive VOC

Controls: None

APPLICABLE REGULATIONS: None

- 1. Operating Limitations: None**
- 2. Emission Limitations: None**
- 3. Testing Requirements: None**
- 4. Specific Monitoring Requirements: None**
- 5. Specific Recordkeeping Requirements: None**
- 6. Specific Reporting Requirements: None**
- 7. Specific Control Equipment Operating Conditions: Not Applicable**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

GW1 GATEWAY FACILITY PROCESS VENTS (New Construction)

Description:

Gateway Facility Process Vent Emissions

Gateway Facility Batch Production Processes

01 Gateway Facility Process Vent Emissions

Controls: Gateway Thermal Oxidizer

GW2 GATEWAY THERMAL OXIDIZER COMBUSTION PRODUCTS (New Construction)

Description:

Gateway Thermal Oxidizer Products of Combustion

01 Gateway Thermal Oxidizer Combustion Product Emissions

Controls: None

GW3 GATEWAY FACILITY FUGITIVE EMISSIONS (New Construction)

Description:

Gateway Facility Fugitive Emissions

Gateway Facility Batch Production Processes

01 Gateway Facility Fugitive VOC

Controls: None

02 Gateway Facility Fugitive HAP

Controls: None

APPLICABLE REGULATIONS:

The source has elected to install and operate a thermal oxidizer to preclude the applicability of 401 KAR 51:017 Prevention of Significant Deterioration of Air Quality.

401 KAR 63:020 *Potentially hazardous matter or toxic substances* (New construction)

1. **Operating Limitations:** None

2. **Emission Limitations:**

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

In order to preclude the applicability of 401 KAR 51:017, total emission of VOC from the Gateway Process shall not exceed 36 tons per year based on any twelve (12) consecutive months.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method:

- 1) For fugitive emissions:

The permittee shall maintain a count of pumps, valves and flanges. On-site emissions calculations shall be updated once per year.

- 2) For process emissions:

$$\text{VOC emissions} = P1 \times (\text{Highest VOC Product emission rate}) \times (1 - \text{control efficiency}) \\ + P2 \times (\text{Highest VOC Product emission rate}) \times (1 - (\text{Control Eff}))$$

where: P1 = Duration of 15 minute periods of process operation with control device combustion temperature at or above the value established in the Revised application form (required in 3. Testing Requirements below) for 7 1/2 minutes or greater;
P2 = Duration of 15 minute periods of process operation with control device combustion temperature below the value established in the Revised application form (required in 3. Testing Requirements below) for 7 1/2 minutes or greater.

Control Efficiency = 95% or the last value determined during a performance test. (Highest registered VOC product is currently 32 lbs/hour, see **Section 6. Specific Reporting Requirements**.)

3. Testing Requirements:

- a) Prior to a commencement of construction, permittee shall supply the division with the manufacturer's recommended minimum operating temperature of the thermal oxidizer and an updated DEP 7007N form for this control equipment. Process equipment shall not commence operation without approval of the division.
- b) Pursuant to 401 KAR 50:045, the division may request a performance test upon submittal of the final design.

4. Specific Monitoring Requirements:

The permittee shall install, calibrate, operate, and maintain continuous monitoring devices to measure the thermal oxidizer combustion temperature.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of the following information:

- a) Type and number of batches of products produced in the Gateway R&D facility.
- b) Initial calculation of maximum VOC emissions of each product produced.
- c) Annual calculation of fugitive VOC emissions.
- d) The monthly calculation of process VOC emissions, calculated using the equations in **Emission Limitations** 2) above.
- e) All maintenance activities performed on the thermal oxidizer.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- f) The permittee shall record and retain the following records for the thermal oxidizer temperature monitoring system:
 - 1) The permittee shall record the thermal oxidizer combustion temperature. The output of the temperature monitoring device shall be recorded at least once every fifteen minutes, except during periods of monitoring system calibration checks and periods when the monitoring system is malfunctioning. Temperature records shall be maintained and made available for inspection.
 - 2) The permittee shall record and retain records documenting the completion of calibration checks and maintenance specified in the monitoring system's manufacturer's instructions or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
 - 3) The permittee shall maintain records of the occurrence and duration of any period during which the monitoring system is malfunctioning or inoperative.

6. Specific Reporting Requirements:

- a) Source shall maintain initial emission calculations of all products and materials produced in the Gateway R&D facility. Prior to beginning production of a product with higher uncontrolled emissions than those currently registered with the division, permittee shall submit a revised Form DEP 7007B to the Frankfort Central Office.
- b) Prior to commencement of construction, the permittee shall supply the division with the manufacturer's recommended minimum operating temperature of the thermal oxidizer and an updated DEP 7007N form for this control equipment. Process equipment shall not commence operation without written approval of the division.

7. Specific Control Equipment Operating Conditions:

236 Process : Pursuant to 401 KAR 50:035 Section 1 (7)(b) any control equipment or procedures previously used to achieve compliance with a standard formerly contained in 401 KAR 63:022 shall not be removed or altered unless prior approval is obtained from the division. Control equipment may be removed upon approval by the division of calculations that demonstrate that emissions of Toxic Air Pollutants would not have exceeded an ASL level as defined in the former 401 KAR 63:022, Appendix B. Control equipment may also be removed upon the division's approval of results from an approved Air Quality Model, that demonstrates that Maximum ground level concentrations would not have exceed the Threshold Ambient Limits contained in the former 401 KAR 63:022, Appendix B.

Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdowns or malfunctions which temporarily exceed a standard formerly contained in the former 63:021 or 401 KAR 63:022 shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1(3) are satisfied, and the division makes the determinations specified in Section 1(4).

Compliance Demonstration Method: The permittee shall maintain records of when the 236 process is venting to the Gateway Oxidizer. During periods of operation where controls were required to comply with or preclude the requirements of the former KAR 63:022, the permittee shall record and maintain records of whether the Gateway Oxidizer was in operation.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

0AA RILEY BOILER

Description:

Riley Boiler 115-5307

Rated capacity 139 MMBtu/hr heat input

Coal and Comparable Fuels Fired

01 Riley – Coal w/o NH3 Injection

Controls: Multi-cyclone 115/3704
Baghouse 115/3601

02 Riley – Coal with NH3 Injection

Controls: Multi-cyclone 115/3704
Baghouse 115/3601

03 Riley – Comparable Fuels

Controls: Multi-cyclone 115/3704
Baghouse 115/3601

Note: An ammonia laden gas stream from the 211 and 222 pyrrolidone units stripper is also combusted in this unit.

APPLICABLE REGULATIONS:

401 KAR 51:017. *Prevention of Significant Deterioration of Air Quality* applies to the combustion of ammonia laden gas from the 211 and 222 pyrrolidone units stripper.

401 KAR 50:055. *General Compliance Requirements*.

401 KAR 61:015. *Existing Indirect Heat Exchangers* constructed prior to April 9, 1972.

40 CFR 261. *Identification and Listing of Hazardous Waste*.

1. Operating Limitations:

- a) The Comparable Fuels stream burned shall comply with the Comparable/Syngas Fuels Exclusion (40 CFR 261.38).

Compliance Demonstration Method: Permittee shall maintain records of all Comparable fuels burned in the Riley Boiler.

- b) Pursuant to 401 KAR 51:017, injection of the waste gas shall be at the same location in the coal combustion zone as during the source's last performance test.

Compliance Demonstration Method: Records of the yearly inspections of the waste gas injection system.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- c) Pursuant to 401 KAR 50:016, daily average steam production shall not exceed 110% of the production rate of the most current Division monitored performance test. {At time of initial permit issuance, last testing was August 2000}

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**Emission Limitations:**

- a) Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.25 lb/MMBtu on a 3 hour average basis, except as follows:

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the three-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: Maintain records and supplies of monthly average emission rates upon request, as follows:

$$\text{lb PM/MMBtu} = \{(\text{EFCoal} \times \text{Tons Coal}) + (\text{EFCF} \times 10^3 \text{ Gals CF}) \times \{1 - \text{Efficiency}/100\} \\ \div \{(\text{HVCoal} \times \text{Tons Coal}) + (\text{HVCF} \times 10^3 \text{ Gals CF})\}$$

where: EFCoal = coal emission factor of 66 lb PM/ton coal or the measured value from the last emissions test.

Tons Coal = total tons of coal burned during the month.

EFCF = Comparable Fuels emission factor of 1.58 lb PM/10³ gallons Comparable Fuels or the measured value from the last emissions test

10³ Gal CF = thousand gallons Comparable Fuels burned during the month

HVCoal = average heat content for coal burned during the month, MMBtu/ton

HVCF = representative or lower heat content for Comparable Fuels burned during the month, MMBtu/10³ gals

Efficiency = 99.6% or the measured value from the last emissions test

- b) Pursuant to 401 KAR 61:015, Section 4(2), visible emissions shall not exceed 20% opacity on a 6 minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - 2) Pursuant to 401 KAR 61:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - 3) Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - 4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

periods of startup and shutdown.

Compliance Demonstration Method: The permittee shall perform Method 9 test at least once every 3 months and monitoring the operation of the baghouse.

- c) When burning coal alone, pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 6.0 lbs/MMBtu on a 24 hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: Maintain records and supply Calculations of 24-hour average emission rates upon request, as follows:

$$\text{lb SO}_2/\text{MMBtu} = (38 \times \%S) \text{ lb SO}_2/\text{ton coal} \div \text{HVCoal}$$

where:

%S = average coal weight percent sulfur content

HVCoal = average coal heat content

- d) When burning coal and Comparable Fuels simultaneously, pursuant to 401 KAR 61:015, Section 5(2), sulfur dioxide emissions on a 24-hour average basis shall not exceed the allowable emission rate determined by proration using the following formula, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

$$\text{Allowable SO}_2 \text{ Emissions lb/MMBtu} = \{y(3.4) + z(6.0)\} \div \{y + z\}$$

where:

y = the percent of total heat input derived from Comparable Fuels (liquid fuel)

z = the percent of total heat input derived from coal (solid fuel)

Compliance Demonstration Method: Maintain records and supply calculations of 24-hour average emission rates upon request, as follows (Comparable Fuels stream contains negligible

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

sulfur):

$$\text{lb SO}_2/\text{MMBtu} = \{(38 \times \%S) \text{ lb SO}_2/\text{tons coal} \times \text{Tons Coal}\} \\ \div \{(\text{HVCoal} \times \text{Tons Coal}) + (\text{HVCF} \times 10^3 \text{ Gals CF})\}$$

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

where:

%S = average coal weight percent sulfur content

Tons Coal = total tons of coal burned during the 24-hour period

HVCoal = average heat content for coal burned, MMBtu/ton

10^3 Gal CF = thousand gallons Comparable Fuels burned

HVCF = representative or lower heat content for Comparable Fuels burned,
MMBtu/ 10^3 gals

- e) Pursuant to 401 KAR 51:017, combined nitrogen oxides emissions from the burning of coal and combustion of the waste gas stream, expressed as nitrogen dioxide shall not exceed 122.8 lbs per hour on a monthly average, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), nitrogen oxides emissions due to shutdown or malfunctions which temporarily exceed the monthly average standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: Historical and performance testing during term of the permit of nitrogen oxides emissions.

3. Testing Requirements:

- a) An EPA Method 9 test shall be conducted at least once every 3 calendar months during the term of this permit.
- b) As long as the boiler is used to combust an ammonia-laden waste gas stream, the permittee shall conduct testing for NO_x once during the permit term. Testing for NO_x shall be performed using Reference Method 7. Production of 211/222 pyrrolidone shall be operated to give the maximum ammonia production to determine compliance with the 122.8 lbs/hour nitrogen oxides emission rate limit, expressed as nitrogen dioxide. For this permit the August 2000 performance test shall have fulfilled this requirement.
- c) Not later than 180 days after initial combustion of Comparable Fuels, the permittee shall conduct testing for NO_x using Reference Method 7. Testing is only required for the combustion of Comparable fuels.
- d) The permittee shall conduct testing for particulate once during the term of this permit using Reference Method 5.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

- a) The permittee shall maintain, calibrate and operate according to manufacturer's specification, a monitoring device for the measurement of the differential pressure across the individual compartment on Baghouse 115/3601.
- b) A yearly inspection of the waste gas injection system into the Riley Boiler shall be performed.

5. Specific Recordkeeping Requirements:

- a) Vendor certifications representative of the heat and sulfur content for all coal burned. The permittee shall either perform the appropriate ASTM methods for each batch processed by the vendor, or have a contractual agreement with its supplier to have the ASTM methods performed on each batch processed by the vendor.
- b) Analysis or calculations of the representative heat content for the Comparable Fuels stream burned. This can be a worst-case (lower) heat content.
- c) Results of all opacity and particulate emission tests performed on this emission unit.
- d) Nitrogen oxides emissions measurements and concurrent 211 and 222 pyrrolidone production rate during the emissions measurements.
- e) Monthly pyrrolidone production rate for the 211 and 222 pyrrolidone units.
- f) Daily records of the differential static pressure across each baghouse compartment.
- g) Daily log of the following information shall be kept:
- h) i. Whether any air emissions were visible from the stack.
If visible emissions are observed, the permittee shall record the following information:
 - ii. A EPA Method 9 test, **OR**
 - iii. Whether the visible emissions were normal for the process.
 - iv. The color of the emissions and whether the emissions were light or heavy.
 - v. The cause of the abnormal visible emissions.
- i) Daily log of the baghouse cleaning cycle sequencing.
- j) Daily log of the plant air system pressure.
- k) Daily log of the status of the baghouse hoppers.
- l) Daily steam production
- m) A log of the routine and scheduled maintenance performed on the Riley Boiler, baghouse and on the waste gas injection system to the Riley Boiler.

6. Specific Reporting Requirements:

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour standard, sulfur dioxide emissions exceeding the 24-hour average standard, or

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

nitrogen oxides exceeding the monthly standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).

- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the average standard, sulfur dioxide emissions exceeding the 24-hour average standard, or nitrogen oxides exceeding the monthly standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. Specific Control Equipment Operating Conditions:

Multi-cyclone 115/3704:

Baghouse 115/3601:

- a) The pollution control devices listed above shall be maintained and operated in accordance with good operating procedures as described by the Environmental Compliance Task Manual retained at the source.
- b) The permittee shall retain the Environmental Compliance Task Manual addressing the air pollution control devices listed above.
- c) The permittee shall record and retain records of maintenance performed on the air pollution control devices listed above.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

0AB BABCOCK & WILCOX (B&W) BOILER

Description:

Babcock & Wilcox Boiler 115-5303

Rated capacity 77 MMBtu/hr heat input

Natural Gas and Fuel Oil Fired

01 B&W – Fuel Oil

Controls: None

02 B&W – Natural Gas

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 61:015. *Existing Indirect Heat Exchangers* constructed prior to April 9, 1972

1. Operating Limitations: None

2. Emission Limitations:

- a) Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.25 lb/MMBtu on a 3 hour average basis, except as provided below.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the average standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: While burning only fuel oil or natural gas the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b) Pursuant to 401 KAR 61:015, Section 4(2), visible emissions shall not exceed 20% opacity on a 6 minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

determinations specified in Section 1(4).

- 2) Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- 3) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method: While burning only the natural gas or fuel oil the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- c) Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 4.0 lbs/MMBtu on a 24 hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: When the indirect heat exchanger is burning natural gas, the permittee is assumed to be in compliance with the sulfur dioxide emission standard. When burning fuel oil, the compliance demonstration method shall be a calculation of the 24 hour average emission rate upon request by the division, using emission factor, 24 hour average fuel oil heat content, and 24 hour average fuel oil weight percent sulfur as follows:

$$\text{lb SO}_2/\text{MMBtu} = (142 \times \text{oil weight \% sulfur}) \text{ lb SO}_2/10^3 \text{ gal oil} \div \text{MMBtu}/10^3 \text{ gal oil}.$$

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

- a) The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.
- b) The permittee shall retain records representative of the heat content for all fuel oil burned.
- c) The permittee shall retain records representative of the sulfur content for all fuel oil burned.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. Specific Control Equipment Operating Conditions: Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

0AC WICKES BOILER

Description:

Wickes Boiler 115-5304

Rated capacity 76 MMBtu/hr heat input

Natural Gas, Fuel Oil, and Comparable Fuels Fired

01 Wickes – Fuel Oil

Controls: None

02 Wickes – Natural Gas

Controls: None

03 Wickes – Comparable Fuels

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 61:015. *Existing Indirect Heat Exchangers* constructed prior to April 9, 1972

40 CFR 261. *Identification and Listing of Hazardous Waste*

1. Operating Limitations:

Permittee shall burn only fuel oil, natural gas, or materials that comply with the Comparable/Syngas Fuels Exclusion (40 CFR 261.38)

Compliance Demonstration Method: Permittee shall maintain records of all fuels burned in the Wickes Boiler.

2. Emission Limitations:

- a) Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.25 lb/MMBtu on a three hour average basis, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the three-hour average standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: While burning only natural gas, fuel oil and

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

comparable fuels as defined by 40 CFR 261, the permittee shall be deemed to be in compliance with the applicable emission standard. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b) Pursuant to 401 KAR 61:015, Section 4(2), visible emissions shall not exceed 20% opacity on a 6 minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - 2) Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - 3) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method: While burning only natural gas, fuel oil and comparable fuels the permittee shall be deemed to be in compliance with the applicable emission standard. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- c) Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 4.0 lbs/MMBtu on a 24 hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: While burning only natural gas or Comparable Fuels the permittee shall be deemed to be in compliance with the applicable emission standards. When burning fuel oil, the compliance demonstration method shall be a calculation of the 24 hour average emission rate upon request by the division, using emission factor, 24 hour average fuel oil heat content, and 24 hour average fuel oil weight percent sulfur as follows:

$$\text{lb SO}_2/\text{MMBtu} = (142 \times \text{oil weight \% sulfur}) \text{ lb SO}_2/10^3 \text{ gal oil} \div \text{MMBtu}/10^3 \text{ gal oil}.$$

3. Testing Requirements:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

In addition to any waste analysis plan required by 40 CFR 261.38, the permittee shall calculate by either testing results or through inherent process knowledge the sulfur content of all comparable fuels burned in the boiler.

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements:

- a) The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.
- b) The permittee shall retain records representative of the heat content of all fuel oil burned.
- c) The permittee shall retain records representative of the sulfur content of all fuel oil burned.

6. Specific Reporting Requirements:

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. Specific Control Equipment Operating Conditions: Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

0AD EAST PARACYMENE HEATER

Description:

Struthers Paracymene Heater 115-5306

Rated capacity 12.35 MMBtu/hr heat input

Natural Gas and Fuel Oil Fired

01 East Paracymene – Fuel Oil

Controls: None

02 East Paracymene – Natural Gas

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 61:015. *Existing Indirect Heat Exchangers* constructed prior to April 9, 1972

1. **Operating Limitations:** None

2. **Emission Limitations:**

- a) Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.25 lb/MMBtu on a 3 hour average basis, except as follows.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the three-hour average standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: While burning natural gas and fuel oil the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b) Pursuant to 401 KAR 61:015, Section 4(2), visible emissions shall not exceed 20% opacity on a 6 minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

determinations specified in Section 1(4).

- 2) Pursuant to 401 KAR 61:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- 3) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method: While burning natural gas and fuel oil the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- c) Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 4.0 lbs/MMBtu on a 24 hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: When the indirect heat exchanger is burning natural gas, the permittee is assumed to be in compliance with the sulfur dioxide emission standard. When burning fuel oil, the compliance demonstration method shall be a calculation of the 24 hour average emission rate upon request by the division, using emission factor, 24 hour average fuel oil heat content, and 24 hour average fuel oil weight percent sulfur as follows:

$$\text{lb SO}_2/\text{MMBtu} = (142 \times \text{oil weight \% sulfur}) \text{ lb SO}_2/10^3 \text{ gal oil} \div \text{MMBtu}/10^3 \text{ gal oil}.$$

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

- a) The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.
- b) The permittee shall retain records representative of heat content of all fuel burned.
- c) The permittee shall retain records representative of sulfur content of all fuel oil burned.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. Specific Control Equipment Operating Conditions: Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

0ZU ZURN BOILER

Description:

Zurn Boiler 115-5328

Rated capacity 149 MMBtu/hr heat input

Natural Gas and Fuel Oil Fired

01 Zurn – Fuel Oil

Controls: None

02 Zurn – Natural Gas

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 59:005. *General Provisions*

401 KAR 59:015. *New Indirect Heat Exchanger* constructed after April 9, 1972

Exemption: 401 KAR 60:005.(40 CFR 60 Subpart Dc) *Standards of performance for industrial-commercial-institutional steam generating units* does not apply as construction date was before June 19, 1984.*

*Unit was constructed and operational prior to 1972, but installed in Kentucky in November 1986.

1. Operating Limitations:

To preclude the applicability of 410 KAR 51:017 (PSD) for sulfur dioxide emissions, No. 2 Fuel Oil use shall not exceed 700,000 gallons per year for any twelve (12) consecutive months, and the sulfur content of No. 2 fuel oil burned shall not exceed 0.5 weight percent.

2. Emission Limitations:

- a) Pursuant to 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.10 lb/MMBtu on a 3 hour basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the three-hour average standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Compliance Demonstration Method: When burning only natural gas or fuel oil, permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b) Pursuant to 401 KAR 59:015, Section 4(2), visible emissions shall not exceed 20% opacity on a 6 minute average basis, except as follows:
- 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - 2) Pursuant to 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - 3) Pursuant to 401 KAR 59:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - 4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method: When burning only natural gas or #2 fuel oil, permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- c) Pursuant to 401 KAR 59:015, Section 5(1)(b), sulfur dioxide emissions shall not exceed 0.8 lb/MMBtu on a 24 hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: When the indirect heat exchanger is burning natural gas, the permittee is assumed to be in compliance with the sulfur dioxide emission standard. When burning No. 2 fuel oil, the compliance demonstration method shall be a calculation of the calendar month average emission rate upon request by the division, using emission factor, average fuel oil heat content, and average fuel oil weight percent sulfur as follows:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$\text{lb SO}_2/\text{MMBtu} = (142 \times \text{oil weight \% sulfur}) \text{ lb SO}_2/10^3 \text{ gal oil} \div \text{MMBtu}/10^3 \text{ gal oil}.$

- d) In order to preclude the applicability of 401 KAR 51:017 (PSD) for sulfur dioxide emissions, sulfur dioxide emissions shall not equal or exceed 36 tons per year for any twelve (12) consecutive months.

Compliance Demonstration Method: Fuel oil use is limited to 700,000 gallons per year, and fuel oil sulfur content limited to 0.5 weight percent. Permittee shall retain monthly records of fuel oil use and vendor certifications representative of the sulfur content of all fuel oil burned.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

- a) The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.
- b) The permittee shall retain records representative of heat content of all fuel oil burned.
- c) The permittee shall retain records representative of sulfur content of all fuel oil burned.
- d) The permittee shall record the amount of No. 2 fuel oil burned each month.
- e) Pursuant to 401 KAR 59:005, Section 3(2), the permittee shall record the occurrence and duration of any startup, shutdown, or malfunction in the operation of the indirect heat exchanger.

6. **Specific Reporting Requirements:**

- a) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard, three-hour average particulate emissions standard, or sulfur dioxide emissions exceeding the 24-hour average standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- b) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).

7. **Specific Control Equipment Operating Conditions:** Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

WPH WEST PARACYMENE HEATER

Description:

First Thermal Systems Paracymene Heater 126-5301

Rated capacity 10 MMBtu/hr heat input

Natural Gas, Fuel Oil, and Hydrogen Fired

01 W Paracymene – Fuel Oil

Controls: None

02 W Paracymene – Natural Gas

Controls: None

03 W Paracymene – Hydrogen

Controls: None

APPLICABLE REGULATIONS:

401 KAR 50:055. *General Compliance Requirements*

401 KAR 59:005. *General Provisions*

401 KAR 59:015. *New Indirect Heat Exchangers* constructed after April 9, 1972

401 KAR 60:005 (40 CFR 60 Subpart Dc). *Standards of performance for small industrial-commercial-institutional steam generating units that commences construction, modification, or reconstruction after June 9, 1989*

1. Operating Limitations:

Pursuant to 40 CFR 60 Subpart Dc, Section 60.42c(h), no oil that contains greater than 0.5 weight percent sulfur shall be combusted.

Compliance Demonstration Method: Records as specified by Section 5. Specific Recordkeeping Requirements.

2. Emission Limitations:

- a) Pursuant to 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.10 lb/MMBtu on a three-hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), particulate emissions due to shutdown or malfunctions which temporarily exceed the three-hour average standard shall not

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).

Compliance Demonstration Method: While burning only natural gas, hydrogen, and/or #2 fuel oil, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- b) Pursuant to 401 KAR 59:015, Section 4(2), visible emissions shall not exceed 20% opacity on a 6 minute average basis, except as follows:
 - 1) Pursuant to 401 KAR 50:055, Section 1(1), emissions due to shutdown or malfunctions which temporarily exceed the 6-minute average opacity standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations specified in Section 1(4).
 - 2) Pursuant to 401 KAR 59:015, Section 4(2)(b), a maximum of 40% opacity is permissible for not more than 6 consecutive minutes in any 60 consecutive minute period during cleaning the fire box or blowing soot.
 - 3) Pursuant to 401 KAR 59:015, Section 4(2)(c), the opacity standard does not apply during building a new fire for the period required to bring the boiler up to operating conditions, provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
 - 4) Pursuant to 401 KAR 50:055, Section 2(4), the opacity standard does not apply during periods of startup and shutdown.

Compliance Demonstration Method: While burning only natural gas, hydrogen, and/or #2 fuel oil, the permittee shall be deemed to be in compliance with the applicable emission standards. The permittee shall keep annual (calendar year) records of the type(s) of fuel burned.

- c) Pursuant to 401 KAR 59:015, Section 5(1)(b), when burning natural gas and/or hydrogen, sulfur dioxide emissions shall not exceed 0.8 lb/MMBtu on a 24-hour average basis, except as follows. If necessary to demonstrate compliance, testing for periods less than the specified averaging time may be used.

Pursuant to 401 KAR 50:055, Section 1(1), sulfur dioxide emissions due to shutdown or malfunctions which temporarily exceed the 24-hour standard shall not be deemed in violation of such standards if the requirements of 401 KAR 50:055, Sections 1(2) and 1(3) are satisfied, and the Director makes the determinations

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

specified in Section 1(4).

Compliance Demonstration Method: When the indirect heat exchanger is burning natural gas and/or hydrogen, the permittee is assumed to be in compliance with the 401 KAR 59:015, Section 5(1)(b) sulfur dioxide emission standard.

3. **Testing Requirements:** None

4. **Specific Monitoring Requirements:** None

5. **Specific Recordkeeping Requirements:**

- a) The permittee shall retain annual (calendar year) records of the types of fuel burned in the boiler.
- b) Pursuant to 40 CFR 60 Subpart Dc, Sections 60.42c(h) and 60.48c(f)(1), the permittee shall record the sulfur content of fuel oil burned by obtaining a fuel supplier certification for all fuel oil burned. The fuel supplier certification shall include the following information:
 - 1) The name of the oil supplier; and
 - 2) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60 Subpart Dc, Section 60.41c (ASTM Standard Specifications for Fuel Oils for number 1 and 2 fuel oils).
- c) Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(g), the permittee shall record the amount of each fuel combusted during each day.
- d) Pursuant to 40 CFR 60 Subpart Dc, Section 60.48c(e), the permittee shall retain records of the reports required by Section 60.48c(d).
- e) Pursuant to 40 CFR 60 Subpart A, Section 60.7(b), and 401 KAR 59:005, Section 3(2), the permittee shall record the occurrence and duration of any startup, shutdown, or malfunction in the operation of the indirect heat exchanger.

6. **Specific Reporting Requirements:**

- a) Pursuant to 40 CFR 60 Subpart A, Section 60.7(a)(4), and 401 KAR 59:005, Section 3(1)(d), the Paducah Regional Office shall be notified of modifications (as defined in 401 KAR 59:001) to this affected facility. This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Cabinet may request additional relevant information subsequent to this notice.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- b) Pursuant to 401 KAR 50:055, Section 1(2), the permittee shall notify the Division's Paducah Regional Office in writing no later than 3 days before any planned shutdown and ensuing startup that will result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard. If the shutdown could not have been reasonably foreseen 3 days before the event, notification shall be given immediately following the decision to shut down. Notifications shall include all information specified in Section 1(2).
- c) Pursuant to 401 KAR 50:055, Section 1(3), if emissions during malfunctions, unplanned shutdowns or ensuing startups are or may result in opacity exceeding the 6-minute average standard, particulate emissions exceeding the three-hour average standard, or sulfur dioxide emissions exceeding the 24-hour average standard, the permittee shall notify the Division's Paducah Regional Office by telephone as promptly as possible and send a written notice if so requested. Such written notice shall include all information specified in Section 1(3).
- d) Pursuant to 40 CFR 60 Subpart Dc, Sections 60.48c(d), (e)(11), (f), and (j), the permittee shall submit reports to the Paducah Regional Office. Each report shall be postmarked by the 30th day following the end of each six-month reporting period, and shall include the following information:
 - 1) Fuel supplier certification, as described in Monitoring Condition 4(b); and
 - 2) A statement signed by the owner or operator that the records of fuel supplier certification submitted represent all of the fuel oil combusted during the quarter.

7. **Specific Control Equipment Operating Conditions**: Not Applicable

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

CT1 COOLING TOWERS

Description:

North Cooling Towers (#1 & #2)

South Cooling Towers (#3 & #4)

01 Cooling Towers

Controls: None

APPLICABLE REGULATIONS:

401 KAR 63:010. *Fugitive Emissions*

1. Operating Limitations:

Pursuant to 401 KAR 63:010, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

2. Emission Limitations: None

3. Testing Requirements: None

4. Specific Monitoring Requirements: None

5. Specific Recordkeeping Requirements: None

6. Specific Reporting Requirements: None

7. Specific Control Equipment Operating Conditions: Not Applicable

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary. Pursuant to 401 KAR 52:020 Section 18, additional insignificant activities may be added to this permit as a 502(b)10 change.

INSIGNIFICANT ACTIVITIES

Emission Unit	Source ID	Emission Point	Description	Applicable Regulation
PYR	311/3006	311/005SC	VOL Storage Tank	None
PYR	311/3008	311/007SC	VOL Storage Tank	None
TANKS	1153001	1153001	VOL Storage Tank	None
TANKS	210-3001	210-3001	VOL Storage Tank	None
TANKS	210-3002	210-3002	VOL Storage Tank	None
TANKS	210-3003	210-3003	VOL Storage Tank	None
TANKS	2103004	2103004	VOL Storage Tank	None
TANKS	2103008	2103008	VOL Storage Tank	None
TANKS	2103014	2103014	VOL Storage Tank	None
TANKS	2103015	2103015	VOL Storage Tank	None
TANKS	2103020	2103020	VOL Storage Tank	None
TANKS	2103021	2103021	VOL Storage Tank	None
TANKS	2103025	2103025	VOL Storage Tank	None
TANKS	2103030	2103030	VOL Storage Tank	None
TANKS	2103033	2103033	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	2103201	2103201	VOL Tank - Pressure Vessel	None
TANKS	2103202	2103202	VOL Tank - Pressure Vessel	None
TANKS	2353001	2353001	VOL Storage Tank	None
TANKS	2353002	2353002	VOL Storage Tank	None
TANKS	2353003	2353003	VOL Storage Tank	None
TANKS	2353004	2353004	VOL Storage Tank	None
TANKS	2353005	2353005	VOL Storage Tank	None
TANKS	2423006	2423006	Water Tank	None
TANKS	2423101	2423101	VOL Storage Tank	None
TANKS	2423102	2423102	VOL Tank - Pressure Vessel	None
TANKS	3053101	3053101	VOL Storage Tank	None
TANKS	310-3000	310-3000	VOL Storage Tank	None
TANKS	3103007	3103007	VOL Storage Tank	None
TANKS	3103009	3103009	VOL Storage Tank	None

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)**INSIGNIFICANT ACTIVITIES**

Emission Unit	Source ID	Emission Point	Description	Applicable Regulation
TANKS	310-3010	310-3010	VOL Storage Tank	None
TANKS	3103011	3103011	VOL Storage Tank	None
TANKS	3103013	3103013	VOL Storage Tank	None
TANKS	3103014	3103014	VOL Storage Tank	None
TANKS	3103016	3103016	VOL Storage Tank	None
TANKS	3103018	3103018	VOL Storage Tank	None
TANKS	3113012	3113012	VOL Storage Tank	None
TANKS	3113013	3113013	VOL Storage Tank	None
TANKS	3113014	3113014	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3133101	3133101	VOL Storage Tank	None
TANKS	3133102	3133102	VOL Storage Tank	None
TANKS	3213001	3213001	VOL Storage Tank	None
TANKS	3213003	3213003	VOL Storage Tank	None
TANKS	3213005	3213005	VOL Storage Tank	None
TANKS	3213006	3213006	VOL Storage Tank	None
TANKS	3213007	3213007	VOL Storage Tank	None
TANKS	321-3010	321-3010	VOL Storage Tank	None
TANKS	3213015	3213015	VOL Storage Tank	None
TANKS	3213016	3213016	VOL Storage Tank	None
TANKS	321-3017	321-3017	VOL Storage Tank	None
TANKS	3213018	3213018	VOL Storage Tank	None
TANKS	3213019	3213019	VOL Storage Tank	None
TANKS	321-3027	321-3027	VOL Storage Tank	None
TANKS	3213028	3213028	VOL Storage Tank	None
TANKS	3213029	3213029	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3213030	3213030	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3233001	3233001	VOL Storage Tank	None
TANKS	3233002	3233002	VOL Storage Tank	None
TANKS	3233004	3233004	VOL Storage Tank	None
TANKS	3233005	3233005	VOL Storage Tank	None
TANKS	3233008	3233008	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3243011	3243011	VOL Storage Tank	None

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)**INSIGNIFICANT ACTIVITIES**

Emission Unit	Source ID	Emission Point	Description	Applicable Regulation
TANKS	3243012	3243012	VOL Storage Tank	None
TANKS	3243017	3243017	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3243209	3243209	VOL Storage Tank	None
TANKS	3263004	3263004	Inorganic Tank	None
TANKS	3263201	3263201	Inorganic Tank	None
TANKS	328-5302	328-5302	VOL Storage Tank	None
TANKS	328-5303	328-5303	VOL Storage Tank	None
TANKS	3303001	3303001	VOL Storage Tank	None
TANKS	3303006	3303006	VOL Storage Tank	None
TANKS	3303007	3303007	VOL Storage Tank	None
TANKS	3303010	3303010	Inorganic Tank	None
TANKS	3303101	3303101	VOL Storage Tank	None
TANKS	3333004	3333004	VOL Storage Tank	None
TANKS	3333005	3333005	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3353101	3353101	Inorganic Tank	None
TANKS	3403001	3403001	VOL Storage Tank	None
TANKS	3403002	3403002	VOL Storage Tank	None
TANKS	3403003	3403003	VOL Storage Tank	None
TANKS	3403004	3403004	VOL Storage Tank	None
TANKS	3403005	3403005	VOL Storage Tank	None
TANKS	3403006	3403006	VOL Storage Tank	None
TANKS	3403008	3403008	VOL Storage Tank	None
TANKS	3403009	3403009	VOL Storage Tank	None
TANKS	3403010	3403010	VOL Storage Tank	None
TANKS	3403013	3403013	VOL Storage Tank	40 CFR 60.116b(a) and (b)
TANKS	3403014	3403014	VOL Storage Tank	40 CFR 60.116b(a) and (b)
LOAD	C2LOAD	210/025DR	C2 Loading Rack	None
LOAD	316SOUTH	316/004DR	316 South Loading Rack	None
LOAD	3113012LD	311/013DR	311/3012 Loading Rack	None
LOAD	W1LOAD	321/019DR	W1 Loading Rack	None
LOAD	NX1LOAD	330/003DR	North X1 Loading Rack	None

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)**INSIGNIFICANT ACTIVITIES**

Emission Unit	Source ID	Emission Point	Description	Applicable Regulation
LOAD	240NLOAD	240/028DR	North 240 Loading Rack	None
LOAD	U2LOAD	330/013DR	U2 Loading Rack	None
LOAD	V2LOAD		V2 Loading Rack Arm	None
LOAD	W2LOAD		W2 Loading Rack Arm	None
240		240/AP01	Air Pallet (AP) Filling System - Train 1	401 KAR 59:010 (Refer to <u>Section J Non-Applicable Regulations - Requirements for Qualification as an Insignificant Activity</u>)
240		240/AP01	Bulk Bag (BB) Filling System - Train 2	
240		240/AP01	Air Pallet (AP) Filling System - Train 3	
240		240/AP01	Powder Vacuum Transfer System - Fines from Drumming from 241/37ZZ Repack Filter	
240	241/37AA	240/AP02	Air Pallet Unloader Baghouse	
240	241/37BB	240/AP03	Air Pallet Unloader Baghouse	
240	241/3722	240/AP04	Powder Vacuum Transfer System Powder Unit - Vent from Repack Filter 241/3722	
240		240/AP05	Dust Collection - Air Pallet Loading from Blenders	None
240	241/32BB, CC	240/AP05	All Powder/Liquid Mixing Systems - Vent from 241/32BB, CC Slurry/Nitrogen Separators	
240	336/32ZZ	240/AP06	VOL Storage Tank	40 CFR 60.116b(a) and 60.116b(b)
240	336/32AA	240/AP07	VOL Storage Tank	40 CFR 60.116b(a) and 60.116b(b)
240		240/AP13	Air Pallet Bag Loading Vacuum	None
236	236/3234 & 236/3706	236/010BG	Central Vacuum System	401 KAR 59:010
236	236/3705	236/009RE	Air Mill Feed Hopper	401 KAR 59:010
236	236/3706	None	Drumming from Hopper 236/3706	401 KAR 59:010
236	236/3707	None	Drumming from Hopper 236/3707	401 KAR 59:010
236	236/3710	236/113BG	Drumming operations from Hopper 236/3710	401 KAR 59:010
236	236/3711	236/113BG	Drumming operations from Hopper 236/3711	401 KAR 59:010

SECTION C – INSIGNIFICANT ACTIVITIES (CONTINUED)**INSIGNIFICANT ACTIVITIES**

Emission Unit	Source ID	Emission Point	Description	Applicable Regulation
236	236/3711	236/111BG	Product Hopper 236/3711 Loading	401 KAR 59:010
236	236/3712	236/121BG	Product Hopper 236/3712 Loading	401 KAR 59:010
236	236/3716	236/112BG	Cyclone for Dryer 236/3506	401 KAR 59:010
236	236/3710	236/112BG	Drumming operations from Hopper 236/3710	401 KAR 59:010
236	236/3712	236/113BG	Drumming operations from Hopper 236/3712	401 KAR 59:010
315	315/3311	315/047FI	Product Drumming Operation for Kettle 315/3311	401 KAR 59:010
200	200/3704	200/044DR	Product Drumming from Hopper 200/3704	401 KAR 61:020
200	200/3641	200/040DR	Fines Collection from Baghouse 200/3641	401 KAR 63:010
200	200/3708	200/042DR	Product Drumming from Hopper 200/3708	401 KAR 61:020
200	200/3708	200/045DR	Product Drumming from Hopper 200/3708	401 KAR 61:020
200	200/3712	200/041DR	Fines Collection from Dustex 200/3712	401 KAR 63:010
334	None	334/006BL	Central Vacuum System Separator for 334 Building	401 KAR 59:010
UTILITIES	None	None	Coal Handling and Stockpile	401 KAR 59:010
UTILITIES	None	None	Well Pumps (Four)	None
UTILITIES	None	None	Emergency Electrical Generator	None
UTILITIES	None	None	Petroleum Liquid Storage Vessels with capacities less than 1,500 gallons each	401 KAR 59:050 Section 3(2)

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. PM emissions, as measured by KY method 50 shall not exceed the respective limitations specified herein for units construct prior to July 2, 1984 subject to compliance under 401 KAR 59:010 or 401 KAR 61:020.
2. Nitrogen Dioxide, Sulfur Dioxide, VOC, and PM₁₀, emissions, as measured by methods referenced in 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.
3. As required by Section 1b of the material incorporated by reference in 401 KAR 52:020 Section 10, compliance with annual emissions and processing limitations contained in this permit shall be based on emissions and processing rates for any twelve (12) consecutive months.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements.
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.[Material incorporated by reference by 401 KAR 52:020, Section 1b (IV)1]
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [Material incorporated by reference by 401 KAR 52:020, Sections 1b(IV) 2 and 1a(8)]
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
 - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.
 - e. Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.
[Material incorporated by reference by 401 KAR 52:020, Section 1b (V)1.]

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due prior to January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports. Failure to monitor or record the parameters required by this permit (including monitoring and recording done by instrumental, non-instrumental, and human methods) shall not constitute an exceedance or deviation from permit requirements, a reportable exceedance or deviation, or non-compliance with permit conditions if such failures do not exceed 5% of the total operating time of the emission unit in any year.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6. [Material incorporated by reference by 401 KAR 52:020, Section 1b V 3, 4.]
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period, and
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

**Division for Air Quality
Paducah Regional Office
4500 Clarks River Road
Paducah, KY 42003-0823**

**U.S. EPA Region IV
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960**

**Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40510**

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced in 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including termination, revocation and reissuance, revision or denial of a permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 3]
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 6]
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.
4. The permittee shall furnish information upon requested by the cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or compliance with the permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 7,8]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority. [Material incorporated by reference by 401 KAR 52:020, Section 7(1)]
6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 14]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 4]

SECTION G - GENERAL PROVISIONS (CONTINUED)

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 15)b]
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [Material incorporated by reference by 401 KAR 52:020, Section 1a, 10]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Section 11(3)(b)]
11. This permit does not convey property rights or exclusive privileges. [Material incorporated by reference by 401 KAR 52:020, Section 1a, 9]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Section 11(3)(a)]
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source
16. Permit Shield - A permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - (a) Applicable requirements that are included and specifically identified in the permit and
 - (b) Non-applicable requirements expressly identified in this permit.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 52:020, Section 12]
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the division after the completeness determination has been made on any application, by whatever deadline the division sets. [401 KAR 52:030 Section 8(2)]

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction and within fifteen (15) days following start-up and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Regional Office listed on the front of this permit in writing, with a copy to the division's Frankfort Central Office, notification of the following:
 - a. The date when construction commenced.
 - b. The date of start-up of the affected facilities listed in this permit.
 - c. The date when the maximum production rate specified in the permit application was achieved.

SECTION G - GENERAL PROVISIONS (CONTINUED)

3. Pursuant to 401 KAR 52:020, Section 3(2), unless construction is commenced within eighteen (18) months after the permit is issued, or begins but is discontinued for a period of eighteen (18) months or is not completed within a reasonable timeframe then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Upon written request, the cabinet may extend these time periods if the source shows good cause.
 4. For those affected facilities for which construction is authorized by this permit, a source shall be allowed to construct with the proposed permit. Operational or final permit approval is not granted by this permit until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055. If compliance is not demonstrated within the prescribed timeframe provided in 401 KAR 50:055, the source shall operate thereafter only for the purpose of demonstrating compliance, unless otherwise authorized by Section I of this permit or order of the cabinet.
 5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with 401 KAR 50:055, General compliance requirements.
 6. Terms and conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.
 7. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the division shall be notified of the actual test date at least ten (10) days prior to the test.
- (e) Acid Rain Program Requirements
1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations are exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source from other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement. [401 KAR 52:020, Section 24(3)]
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Section 24(2)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 3346
Merrifield, VA, 22116-3346

2. If requested, submit additional relevant information to the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

SECTION G - GENERAL PROVISIONS (CONTINUED)

- b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
- e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- 2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS -- N/A

SECTION I - COMPLIANCE SCHEDULE

To implement any new testing, monitoring, recordkeeping, and reporting requirements included herein, the division hereby authorizes a ninety (90) day compliance schedule, beginning with issuance of the final permit, for the following emission points:

1. 231/3406 SRU Venturi Scrubber
2. VOL Storage Tank 340/3014 (controlled by 240 Thermal Oxidizer 421/5312)
3. Scrubber 236/3402
4. Scrubber 236/5375
5. Scrubber 236/5306
6. Scrubber 236/5336
7. Cyclone 236/3701 for Dryer 236/3501
8. Cyclone 236/3708 for Dryer 236/3503
9. 315 Thermal Oxidizer 421/5311
10. Baghouse 200/3641
11. Steam Spray Dryer 200/3501 Central Vacuum System
12. Ribbon Blender 334/3717
13. Scrubber 334/3231
14. Cyclone 334/3716
15. Riley Boiler 115/5307
16. Multi-cyclone 115/3704
17. Baghouse 115/3601
18. Babcock and Wilcox Boiler 115/5303
19. Wickes Boiler 115/5304
20. Struthers Paracymene Heater 115/5306
21. Zurn Boiler 115/5328
22. All Environmental Compliance Task Manuals for Air Pollution Control Devices referenced in this permit

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS

As specified in 401 KAR 52:020, Section 11, compliance with the conditions of this permit shall be deemed compliance with applicable requirements that are included and are specifically identified in this permit, as of the date of permit issuance. Furthermore, pursuant to 401 KAR 52:020, Section 11, the cabinet has determined that the requirements listed in this section are not applicable to the source. This section is not intended to exclude the source from exemption from other applicable requirements.

Pursuant to 401 KAR 52:020, Section 11, nothing in this permit shall alter or affect:

- (a) Emergency orders issued under 42 U.S.C. 7603, including the authority of the U.S. EPA under that section;
- (b) The liability of the owner or operator for violation of an applicable requirement prior to or at the time of permit issuance;
- (c) The applicable requirements of the Acid Rain Program; or
- (d) The ability of the U.S. EPA to obtain information from the source pursuant to 42 U.S.C. 7414.

NON-APPLICABLE REGULATIONS/REQUIREMENTS

Unit	Source ID	Description	Regulation	Description of Exemption
BLO	None	BLO Emission Unit	40 CFR 63 Subpart F -Section 63.100(b)	The BLO chemical manufacturing process unit is not subject to 40 CFR 63 Subparts F, G, or H since the unit does not use as a reactant or manufacture as a primary product, by-product, or co-product an organic HAP listed in Table 2 of Subpart F.
PYR	None	PYR Emission Unit	40 CFR 63 Subpart F -Section 63.100(b)	The PYR chemical manufacturing process unit is not subject to 40 CFR 63 since the unit does not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
PYR	Fugitive	PYR Emission Unit Fugitive Equipment Leaks	40 CFR 60 Subpart VV (adopted by reference at 401 KAR 60:005)	Equipment in the PYR process unit is not an affected facility under Subpart VV since the process unit does not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
	211/3505	Pyrrolidone Reactor	40 CFR 60 Subpart RRR (adopted by reference at 401 KAR 60:005)	Reactors in the PYR process unit are not an affected facility under Subpart RRR since the process unit does not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.
PYR	311/3006	VOL Storage Tank	40 CFR 60 Subpart Kb -Section 60.110b(b)	Since capacity is less than 75 m3 (19,814 gal) tank is exempt from 40 CFR 60 Subpart A and is exempt from all provisions of 40 CFR 60 Subpart Kb, except for 40 CFR 60.116b(a) and (b).
PYR	311/3006	VOL Storage Tank	401 KAR 59:005 -General Provisions: Sections 3(2) and 3(1)(d)	Tank is exempt from the recordkeeping/notification general requirements of NSPS Subpart A (under 40 CFR 60.110b(c)), and therefore is exempt from the duplicative requirements in 401 KAR 59:005.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
PYR	311/3007	VOL Storage Tank	40 CFR 60 Subpart Kb -Section 60.110b(b)	Since capacity is less than 75 m3 (19,814 gal) tank is exempt from 40 CFR 60 Subpart A and is exempt from all provisions of 40 CFR 60 Subpart Kb, except for 40 CFR 60.116b(a) and (b).
PYR	311/3007	VOL Storage Tank	401 KAR 59:005 -General Provisions: Sections 3(2) and 3(1)(d)	Tank is exempt from the recordkeeping/notification general requirements of NSPS Subpart A (under 40 CFR 60.110b(c)), and therefore is exempt from the duplicative requirements in 401 KAR 59:005.
VP	None	VP Emission Unit	40 CFR 63 Subpart F -Section 63.100(b)	The VP chemical manufacturing process unit is not subject to 40 CFR 63 Subparts F, G, or H since the unit does not use as a reactant or manufacture as a primary product, by-product, or co-product an organic HAP listed in Table 2 of Subpart F.
VP	Fugitives	VP Emission Unit Fugitive Equipment Leaks	40 CFR 60 Subpart VV (adopted by reference at 401 KAR 60:005)	Equipment in the VP process unit is not an affected facility under Subpart VV since the process unit does not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
SRU	None	SRU Emission Unit	40 CFR 63 Subpart F -Section 63.100(b)	SRU chemical manufacturing process unit is not subject to 40 CFR 63 Subparts F, G, and H since it does not use as a reactant or manufacture as a product, by -product, or co-product an organic HAP listed in Table 2 of Subpart F.
SRU	231/3402 231/3403	SRU Distillation Columns	40 CFR 60 Subpart NNN (adopted by reference at 401 KAR 60:005)	Kentucky DAQ has determined that the solvent recovery unit is not subject to Subpart NNN. This determination is contained in a February 10, 1996 letter from DAQ to William Koca at ISP.
SRU	Fugitives	SRU Emission Unit Fugitive Equipment Leaks	40 CFR 60 Subpart VV (adopted by reference at 401 KAR 60:005)	Kentucky DAQ has determined that the solvent recovery unit is not subject to Subpart VV. This determination is contained in a February 10, 1996 letter from DAQ to William Koca at ISP.
SRU	231/3406	SRU Scrubber	401 KAR 50:055 - Section 1(1)	Emissions, which due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Section 1(4).
SRU	330/3011	VOL Tank	40 CFR 60 Subpart Kb (adopted by reference at 401 KAR 60:005): Section 40 CFR 60:110b(d)(2)	Storage vessel is exempt from Subpart Kb since it is a pressure vessel designed to operate in excess of 204.9 kPa (29.7 psi) and without emissions to the atmosphere.
VE	None	VE Emission Unit	40 CFR 63 Subpart F -Section 63.100(b)	The VE chemical manufacturing process unit is not subject to 40 CFR 63 Subparts F, G, or H since the unit does not manufacture as a primary product a chemical listed in Table 1 of Subpart F.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
VE	Fugitives	VE Emission Unit Fugitive Equipment Leaks	40 CFR 60 Subpart VV (adopted by reference at 401 KAR 60:005)	Equipment in the VE process unit is not an affected facility under Subpart VV since the process unit does not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
VE	332/3302	Vinyl Ethers Reactor	40 CFR 60 Subpart RRR (adopted by reference at 401 KAR 60:005)	Reactor in the VE process unit is not an affected facility under Subpart RRR since the process unit does not produce, as a product, co-product, by-product, or intermediate a chemical listed in 40 CFR 60.707.
UTILITIES	115/5303 115/5304 115/5307 115/5328 115/5306 126/530 115/5306 126/5301 NORTH TWER & SOUTH TWER	All Indirect Heat Exchangers, North Cooling Tower, South Cooling Tower	401 KAR 50:055 - Section 1(1)	Emissions, which due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and the Director has made the determinations specified in Section 1(4).
UTILITIES	115/5307	139 MMBtu/hr Riley Boiler (Coal Fired)	401 KAR 61:015 -Section 4(2)(b)	Exempt from 61:015 Sec. 4(2) (20% opacity standard) for not more than 6 consecutive min. in any 60 consecutive min. period during cleaning the fire box or blowing soot. At such times opacity must not exceed 40%.
UTILITIES	115/5307	139 MMBtu/hr Riley Boiler (Coal Fired)	401 KAR 61:015 -Section 4(2)(c)	Exempt from 61:015 Sec. 4(2) (20% opacity standard) during building a new fire for the period required to bring the boiler up to operating conditions, provided the manufacturer's recommended methods are used and the time does not exceed the manufacturer's recommendations.
UTILITIES	115/5307	139 MMBtu/hr Riley Boiler (Coal Fired)	401 KAR 50:055: General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
UTILITIES	115/5303	77 MMBtu/hr B&W Boiler (Natural Gas/No. 2 Fuel Oil)	401 KAR 61:015 -Section 4(2)(c)	Exempt from 61:015 Sec. 4(2) (20% opacity standard) during building a new fire for the period required to bring the boiler up to operating conditions, provided the manufacturer's recommended methods are used and the time does not exceed the manufacturer's recommendations.
UTILITIES	115/5307	139 MMBtu/hr Riley Boiler (Coal Fired)	401 KAR 50:055: General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
UTILITIES	115/5304	76 MMBtu/hr Wickes Boiler (Natural Gas/No. 2 Fuel Oil/Clean Fuels)	401 KAR 61:015 -Section 4(2)(c)	Exempt from 61:015 Sec. 4(2) (20% opacity standard) during building a new fire for the period required to bring the boiler up to operating conditions, provided the manufacturer's recommended methods are used and the time does not exceed the manufacturer's recommendations.
UTILITIES	115/5304	76 MMBtu/hr Wickes Boiler (Natural Gas/No. 2 Fuel Oil/Clean Fuels)	401 KAR 50:055: General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
UTILITIES	115/5306	12.35 MMBtu/hr East Paracymene Heater (Natural Gas/No. 2 Oil)	401 KAR 61:015 -Section 4(2)(c)	Exempt from 61:015 Sec. 4(2) (20% opacity standard) during building a new fire for the period required to bring the boiler up to operating conditions, provided the manufacturer's recommended methods are used and the time does not exceed the manufacturer's recommendations.
UTILITIES	115/53	12.35 MMBtu/hr East Paracymene Heater (Natural Gas/No. 2 Oil)	401 KAR 50:055: General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
UTILITIES	115/5328	149 MMBtu/hr Zurn Boiler (Natural Gas/No. 2 Fuel Oil)	401 KAR 59:015 -Section 4(2)(b)	Exempt from 401 KAR 59:015 Sec. 4(2) (20% opacity standard) for not more than six consecutive minutes in any sixty consecutive minutes during cleaning the fire box or blowing soot, when the opacity shall not exceed 40%.
UTILITIES	115/5328	149 MMBtu/hr Zurn Boiler (Natural Gas/No. 2 Fuel Oil)	401 KAR 59:015 -Section 4(2)(c)	Exempt from 59:015 Sec. 4(2) (20% opacity standard) during building a new fire for the period required to bring the boiler up to operating conditions, provided the manufacturer's recommended methods are used and the time does not exceed the manufacturer's recommendations.
UTILITIES	115/5328	149 MMBtu/hr Zurn Boiler (Natural Gas/No. 2 Fuel Oil)	401 KAR 50:055: General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
UTILITIES	126/5301	10 MMBtu/hr West Paracymene Heater (Natural Gas/Hydrogen/No. 2 Oil)	401 KAR 59:015 -Section 4(2)(b)	Exempt from 59:015 Sec. 4(2) (20% opacity standard) for not more than six consecutive minutes in any sixty consecutive minutes during cleaning the fire box or blowing soot, when the opacity shall not exceed 40%.
UTILITIES	126/5301	10 MMBtu/hr West Paracymene Heater (Natural Gas/ Hydrogen/No. 2 Oil)	401 KAR 59:015 -Section 4(2)(c)	Exempt from 59:015 Sec. 4(2) (20% opacity standard) during building a new fire for the period required to bring the heater up to operating conditions, provided the manufacturer's recommended methods are used and the time does not exceed the manufacturer's recommendations.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
UTILITIES	126/5301	10 MMBtu/hr West Paracymene Heater (Natural Gas/ Hydrogen/No. 2 Oil)	401 KAR 50:055: General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
UTILITIES	126/5301	10 MMBtu/hr West Paracymene Heater (Natural Gas/ Hydrogen/No. 2 Oil)	40 CFR 60 Subpart Dc -Section 60.43c(c) [Adopted by Reference as 401 KAR 60:005]	Units with heat input capacities less than 30 MMBtu/hr are not subject to the 20% opacity standard contained in Subpart Dc.
UTILITIES	126/5301	10 MMBtu/hr West Paracymene Heater (Natural Gas/ Hydrogen/No. 2 Oil)	40 CFR 60 Subpart Dc -Section 60.46c(e) [Adopted by Reference as 401 KAR 60:005]	The SO ₂ monitoring requirements of 40 CFR 60.46c do not apply to units using fuel supplier certification to demonstrate compliance with the SO ₂ standard.
UTILITIES	NORTH TWER	North Cooling	40 CFR 63 Subpart Q -Section 63.400	The provisions of 40 CFR 63 Subpart Q do not apply to industrial process cooling towers that did not use chromium-based water treatment chemicals on or after September 8, 1984.
UTILITIES	SOUTH TWER	South Cooling Tower	40 CFR 63 Subpart Q -Section 63.400	The provisions of 40 CFR 63 Subpart Q do not apply to industrial process cooling towers that did not use chromium-based water treatment chemicals on or after September 8, 1984.
240	240	240 Building	40 CFR 63 Subpart F -Sections 63.100(b)	240 Building chemical manufacturing process unit(s) are not subject to 40 CFR 63 Subparts F, G, or H (HON) since the units do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
240	240	240 Building	40 CFR 60 Subpart VV -NSPS for SO ₂ MI Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the 240 Building process unit is not an affected facility under Subpart VV since the process unit does not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
240	240	Benzene Loading Racks	40 CFR 61 Subpart BB -NESHAP for Benzene Transfer Operations (adopted by reference at 401 KAR 57:002) -Section 61.300(a)	240 Building benzene loading is not subject to 40 CFR 61 Subpart BB since facility is not a benzene production facility or bulk terminal, as defined in 61.301.
240	240	Benzene Waste Operations	40 CFR 61 Subpart FF -NESHAP for Benzene Waste Operations: Section 61.342(a)	Facility is exempt from control requirements of 61.342(b) and (c) since the total annual benzene quantity from facility waste is less than 10 Mg/yr, as determined according to 61.342(a)(1)-(4), and 61.355(a)(1) and (2).
240	Fugitives	All Fugitive VOC Emission Components in Benzene Service	40 CFR 61 Subpart J -Section 61.111	Equipment that contains or contacts a fluid that is less than 10 percent benzene by weight (as determined according to 61.245(d)) is not considered to be in benzene service, and is therefore not subject to 40 CFR 61 Subparts J and V.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
240	Fugitives	All Fugitive VOC Emission Components in Benzene Service	40 CFR 61 Subpart V -Section 61.242-1(e)	Equipment that is in vacuum service (operating at an internal pressure at least 5 kPa below ambient pressure) is exempt from the control requirements of 61.242-2 to 61.242-11 if it is identified as required in 61.246(e)(5).
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-10(d)	Delay of repair for pumps is allowed if repair requires the use of a dual mechanical seal system that includes a barrier fluid system, and repair is completed as soon as practicable, but not later than 6 months after leak is detected.
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-11(a)	Delay of repair of leaking equipment is allowed if repair is technically infeasible without a process unit shutdown. Repair must occur by the end of the next process unit shutdown.
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-11(b)	Delay of repair of leaking equipment is allowed if equipment is isolated from the process and does not remain in benzene service.
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-2(d)	Each pump equipped with a dual mechanical seal system that includes a barrier fluid system is exempt from the requirements of 61.242-2(a) and (b) if the requirements of 61.242-2(d)(1) - (6) are met.
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-2(e)	Each pump designated, as described in 61.246(e)(2), for no detectable emissions is exempt from the requirements of 61.242-2(a), (c), and (d) if the pump meets the requirements of 61.242-2(e)(1) - (3) (including annual testing).
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-2(f)	Pumps equipped with a closed-vent system capable of capturing and transporting any leakage to a control device that complies with the requirements of 61.242-11 are exempt from the requirements of 61.242-2(a) - (e).
240	Fugitives	Pumps in Benzene Service	40 CFR 61 Subpart V -Section 61.242-2(g)	Pumps located within the boundary of an unmanned plant site are exempt from the weekly visual inspection requirements of 61.242-2(a)(2) and (d)(4), and the requirements of 61.242-2(d)(5), provided that each pump is visually inspected as often as practicable, and at least monthly.
240	Fugitives	Pressure Relief Devices in Benzene Gas/Vapor Service	40 CFR 61 Subpart V -Section 61.242-11(a)	Delay of repair of leaking equipment is allowed if repair is technically infeasible without a process unit shutdown. Repair must occur by the end of the next process unit shutdown.
240	Fugitives	Pressure Relief Devices in Benzene Gas/Vapor Service	40 CFR 61 Subpart V -Section 61.242-11(b)	Delay of repair of leaking equipment is allowed if equipment is isolated from the process and does not remain in benzene service.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
240	Fugitives	Pressure Relief Devices in Benzene Gas/Vapor Service	40 CFR 61 Subpart V -Section 61.242-4(c)	Pressure relief devices equipped with a closed-vent system capable of capturing and transporting any leakage to a control device that complies with the requirements of 61.242-11 are exempt from the requirements of 61.242-4(a) and (b).
240	Fugitives	Sampling Connection Systems in Benzene Service	40 CFR 61 Subpart V -Section 61.242-5(c)	In-situ sampling systems are exempt from the requirements of 61.242-5(a) and (b)
240	Fugitives	Open-Ended Valves or Lines in Benzene Service	40 CFR 61 Subpart V -Section 61.242-6(c)	When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with 61.242-6(a) at all other times.
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-10(c)	Delay of repair of valves is allowed if owner/operator demonstrates that emissions of purged material resulting from immediate repair are greater than fugitive emissions likely to result from delay of repair, and when repair occurs purged material is collected and destroyed or recovered in a control device complying with 61.242-11.
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-10(e)	Delay of repair beyond a process shutdown is allowed if; valve assembly replacement is necessary during shutdown; valve supplies have been depleted; supplies had been sufficiently stocked prior to depletion; and next shutdown will occur within 6 months after the first shutdown.
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-11(a)	Delay of repair of leaking equipment is allowed if repair is technically infeasible without a process unit shutdown. Repair must occur by the end of the next process unit shutdown.
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-11(b)	Delay of repair of leaking equipment is allowed if equipment is isolated from the process and does not remain in benzene service.
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-7(f)	Each valve designated, as described in 61.246(e)(2), for no detectable emissions is exempt from the monitoring requirements of 61.242-7(a) if the valve meets the requirements of 61.242-7(f)(1) - (3) (including annual testing).
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-7(h)	Each valve designated, as described in 61.246(f)(2), as difficult to monitor, is exempt from the monitoring requirements of 61.242-7(a) if the valve meets the requirements of 61.242-7(h)(1) - (3) (including annual monitoring).

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.242-7(g)	Each valve designated, as described in 61.246(f)(1), as unsafe to monitor, is exempt from the monitoring requirements of 61.242-7(a) if the valve meets the requirements of 61.242-7(g)(1) and (2) (including monitoring during safe-to-monitor times).
240	Fugitives	Valves in Benzene Service	40 CFR 61 Subpart V -Section 61.246(f)(1)	A list of ID numbers for unsafe-to-monitor valves, an explanation stating why each valve is unsafe-to-monitor, and the plan for monitoring each valve shall be recorded in a log that is kept in a readily accessible location.
240	Fugitives	Pressure Relief Devices in Liquid Benzene Service, Flanges, and other Connectors	40 CFR 61 Subpart V -Section 61.242-11(a)	Delay of repair of leaking equipment is allowed if repair is technically infeasible without a process unit shutdown. Repair must occur by the end of the next process unit shutdown.
240	Fugitives	Pressure Relief Devices in Liquid Benzene Service, Flanges, and other Connectors	40 CFR 61 Subpart V -Section 61.242-11(b)	Delay of repair of leaking equipment is allowed if equipment is isolated from the process and does not remain in benzene service.
240	421/5312	240 Thermal Oxidizer	40 CFR 61 Subpart Y -Section 61.271(c)(3)	Closed vent system/control device specifications and requirements listed in 61.271(c)(1) and (c)(2) do not apply during periods of routine maintenance, with such periods not to exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). During such periods the benzene level in tanks required to be controlled by the closed vent system/control device may be lowered but not raised.
240	421/5312	240 Thermal Oxidizer	Exemption from 40 CFR 61 Subpart Y -Section 61.271(c)	Exemption from 40 CFR 61 Subpart Y -Section 61.271(c) is granted for periods longer than 72 hrs/yr. During periods of maintenance storage tanks subject to Subpart Y are routed to Vent-Sorb System. No benzene is pumped to tanks, and Vent-Sorbs are monitored daily for benzene emissions.
240	421/5312	240 Thermal Oxidizer	40 CFR 61 Subpart A -Section 61.14(e)	Monitoring data recorded during periods of unavoidable monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in any data average.
240	421/5312	240 Thermal Oxidizer	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
240	Fugitives	Closed Vent Systems for Capturing Fugitive and Storage Vessel Benzene Emissions	40 CFR 61 Subpart Y -Section 61.271(c)(3)	Closed vent system/control device specifications and requirements listed in 61.271(c)(1) and (c)(2) do not apply during periods of routine maintenance, with such periods not to exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). During such periods the benzene level in tanks required to be controlled by the closed vent system/control device may be lowered but not raised.
240	Fugitives	Closed Vent Systems for Capturing Fugitive and Storage Vessel Benzene Emissions	40 CFR 61 Subpart V -Section 61.242-11(a)	Delay of repair of leaking equipment is allowed if repair is technically infeasible without a process unit shutdown. Repair must occur by the end of the next process unit shutdown.
240	Fugitives	Closed Vent Systems for Capturing Fugitive and Storage Vessel Benzene Emissions	40 CFR 61 Subpart V -Section 61.242-11(b)	Delay of repair of leaking equipment is allowed if equipment is isolated from the process and does not remain in benzene service.
240	240/3308	Train 4 Reactor	40 CFR 60 Subpart RRR -NSPS for SOCM I Reactor Processes (adopted by reference at 401 KAR 60:005)	Reactor process is not an affected facility as defined in 40 CFR 60 Subpart RRR since the process unit does not produce, as a product, co-product, by-product, or intermediate, a chemical listed in 40 CFR 60.707. Additionally, 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.
240	240/3309	Train 2 Reactor	40 CFR 60 Subpart RRR -NSPS for SOCM I Reactor Processes (adopted by reference at 401 KAR 60:005)	Reactor process is not an affected facility as defined in 40 CFR 60 Subpart RRR since the process unit does not produce, as a product, co-product, by-product, or intermediate, a chemical listed in 40 CFR 60.707. Additionally, 40 CFR 60.700(c)(1) exempts reactor processes designed and operated as a batch operation.
240	242/3001	Benzene Storage Tank	40 CFR 61 Subpart Y -Section 61.271(c)(3)	Closed vent system/control device specifications and requirements listed in 61.271(c)(1) (c)(2) do not apply during periods of routine maintenance, with such periods not to exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). During such periods the benzene level in the tank may be lowered but not raised.
240	242/3001	Benzene Storage Tank	Requested Exemption from 40 CFR 61 Subpart Y -Section 61.271(c)	Exemption from 40 CFR 61 Subpart Y -Section 61.271(c) is granted for periods longer than 72 hrs/yr. During periods of maintenance storage tanks subject to Subpart Y are routed to Vent-Sorb system. No benzene is pumped to tanks, and Vent-Sorbs are monitored daily for benzene emissions.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
240	242/3002	Benzene Storage Tank	40 CFR 61 Subpart Y -Section 61.271(c)(3)	Closed vent system/control device specifications and requirements listed in 61.271(c)(1) and (c)(2) do not apply during periods of routine maintenance, with such periods not to exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). During such periods the benzene level in the tank may be lowered but not raised.
240	242/3002	Benzene Storage Tank	Exemption from 40 CFR 61 Subpart Y -Section 61.271(c)	Exemption from 40 CFR 61 Subpart Y -Section 61.271(c) is granted for periods longer than 72 hrs/yr. During periods of maintenance storage tanks subject to Subpart Y are routed to Vent-Sorb system. No benzene is pumped to tanks, and Vent-Sorbs are monitored daily for benzene emissions.
240	242/3005	Benzene Storage Tank	40 CFR 61 Subpart Y -Section 61.271(c)(3)	Closed vent system/control device specifications and requirements listed in 61.271(c)(1) and (c)(2) do not apply during periods of routine maintenance, with such periods not to exceed 72 hours as outlined in the maintenance plan required by 61.272(c)(1)(iii). During such periods the benzene level in the tank may be lowered but not raised.
240	242/3005	Benzene Storage Tank	Requested Exemption from 40 CFR 61 Subpart Y -Section 61.271(c)	Exemption from 40 CFR 61 Subpart Y -Section 61.271(c) is granted for periods longer than 72 hrs/yr. During periods of maintenance storage tanks subject to Subpart Y are routed to Vent-Sorb system. No benzene is pumped to tanks, and Vent-Sorbs are monitored daily for benzene emissions.
240	240/AP01	Air Pallet (AP) Filling System - Train 1	401 KAR 52:020 Section 6. Insignificant Activities	Controlled emissions are considered to be potential emissions for emission units controlled by a baghouse where baghouse operation is required to meet the standards contained in Regulation 401 KAR 59:010. Since "potential emissions" (controlled emissions) from these emission units are less than 5 tons/year particulate each, each emission unit qualifies as an Insignificant Activity.
240	240/AP01	Bulk Bag (BB) Filling System - Train 2		
240	240/AP01	Air Pallet (AP) Filling System - Train 3		
240	240/AP01	Powder Vacuum Transfer System - Fines from Drumming from 241/37ZZ Repack Filter		
240	240/AP02	Air Pallet Unloader Baghouse		
240	240/AP03	Air Pallet Unloader Baghouse		

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
240	240/AP04	Powder Vacuum Transfer System Powder Unit - Vent from Repack Filter 241/3722		
240	240/AP05	Dust Collection - Air Pallet Loading from Blenders		
236	None	236 Building	40 CFR 63 Subpart F -Sections 63.100(b) and 63.100(f)(1)	Process units in the 236 Building are not subject to 40 CFR 63 Subparts F, G, or H (HON) since batch operations are exempted by 63.100(f)(1). Also, the units do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
236	Fugitives	236 Building Fugitive Equipment Leaks	40 CFR 60 Subpart VV -NSPS for SO2MI Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the 236 Building is not an affected facility under Subpart VV since process units do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
236	236/3402 -Scrubber 236/5375 -Scrubber 236/5306 -Scrubber 236/5306 -	236/3402 -Scrubber 236/5375 -Scrubber 236/5306 -Scrubber 236/5336 -Scrubber -240 Oxidizer Gateway Oxidizer	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
236	236/3329	Reactor	40 CFR 60 Subpart RRR -NSPS for SO2MI Reactor Processes (adopted by reference at 401 KAR 60:005)	Reactor process is not subject to Subpart RRR since batch operations are exempted by 40 CFR 60.700(c)(1).
236	236/3330	Reactor	40 CFR 60 Subpart RRR -NSPS for SO2MI Reactor Processes (adopted by reference at 401 KAR 60:005)	Reactor process is not subject to Subpart RRR since batch operations are exempted by 40 CFR 60.700(c)(1).
236	236/3006	Dryer Feed Tank	40 CFR 60 Subpart Kb -Section 60.110b(b)	Since capacity is less than 75 m3 (19,814 gal) tank is exempt from 40 CFR 60 Subpart A and is exempt from all provisions of 40 CFR 60 Subpart Kb, except for 40 CFR 60.116b(a) and (b).
236	236/3006	Dryer Feed Tank	401 KAR 59:005 -General Provisions: Sections 3(2) and 3(1)(d)	Tank is exempt from the recordkeeping/notification general requirements of NSPS Subpart A (under 40 CFR 60.110b(c)), and therefore is exempt from the duplicative requirements in 401 KAR 59:005.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
236	236/3010	Water Tank	40 CFR 60 Subpart Kb -Standards of Performance for VOL Storage Vessels (adopted by reference as 401 KAR 60:005)	Tank is not an affected facility as defined in Subpart Kb since tank is not used to store a volatile organic liquid.
236	236/3701	Cyclone for Dryer 236/3501	401 KAR 50:055 General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
236	236/3701	Cyclone for Dryer 236/3501	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
236	236/3708	Cyclone for Dryer 236/3503	401 KAR 50:055 General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
236	236/3708	Cyclone for Dryer 236/3503	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
315	None	315 Building	40 CFR 63 Subpart F -Sections 63.100(b) and 63.100(f)(1)	Process units in the 315 Building are not subject to 40 CFR 63 Subparts F, G, or H (HON) since batch operations are exempted by 63.100(f)(1). Also, the units do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
315	Fugitives	315 Building Fugitive Equipment Leaks	40 CFR 60 Subpart VV -NSPS for SO2MI Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the 315 Building is not an affected facility under Subpart VV since process units do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
315	421/5311	315 Thermal Oxidizer	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
315	315/3306	Reactor	40 CFR 60 Subpart RRR -NSPS for SO2MI Reactor Processes (adopted by reference at 401 KAR 60:005)	Reactor process is not subject to Subpart RRR since batch operations are exempted by 40 CFR 60.700(c)(1).

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
315	315/3404	Column Still	40 CFR 60 Subpart NNN -NSPS for SO ₂ MI Distillation Operations (adopted by reference at 401 KAR 60:005)	Distillation unit is not subject to Subpart NNN since batch operations are exempted by 40 CFR 60.700(c)(1).
200	None	200 Building	40 CFR 63 Subpart F -Sections 63.100(b) and 63.100(f)(1)	Process units in the 200 Building are not subject to 40 CFR 63 Subparts F, G, or H (HON) since batch operations are exempted by 63.100(f)(1). Also, the units do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
200	Fugitives	200 Building Fugitive Equipment Leaks	40 CFR 60 Subpart VV -NSPS for SO ₂ MI Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the 200 Building is not an affected facility under Subpart VV since process units do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
200	200/3701, 200/3702, and 200/3717 (Cyclones)	200/3501 Steam Spray Dryer Central Vacuum System	401 KAR 50:055 General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown
200	200/3701, 200/3702, and 200/3717 (Cyclones)	200/3501 Steam Spray Dryer Central Vacuum System	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
200	200/3705, 200/3712, and 200/3718 (Cyclones)	200/3502 Gas Spray Dryer Central Vacuum System	401 KAR 50:055 General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown
200	200/3705, 200/3712, and 200/3718 (Cyclones)	200/3502 Gas Spray Dryer Central Vacuum System	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
334	None	334 Building	40 CFR 63 Subpart F -Sections 63.100(b) and 63.100(f)(1)	Process units in the 334 Building are not subject to 40 CFR 63 Subparts F, G, or H (HON) since batch operations are exempted by 63.100(f)(1). Also, the units do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
334	Fugitives	334 Building Fugitive Equipment Leaks	40 CFR 60 Subpart VV -NSPS for SO ₂ MI Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the 334 Building is not an affected facility under Subpart VV since process units do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
334	334/3716 and 334/3231	Cyclone 334/3716 and Scrubber 334/3231	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
334	334/3717	Ribbon Blender (Controlled by Cyclone 334/3716 and Scrubber 334/3231)	401 KAR 50:055 General Compliance Requirements -Section 2(4)	Opacity standards set forth in Kentucky Administrative Regulations do not apply during periods of startup and shutdown.
334	334/3717	Ribbon Blender (Controlled by Cyclone 334/3716 and Scrubber 334/3231)	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and KY DAQ has made the determinations specified in Sec. 1(4).
326BATCH	None	326 Area Batch Processes	40 CFR 63 Subpart F -Sections 63.100(b) and 63.100(f)(1)	Process units in the 326 Batch Area are not subject to 40 CFR 63 Subparts F, G, or H (HON) since batch operations are exempted by 63.100(f)(1). Also, the units do not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
326BATCH	Fugitives	326 Batch Area Fugitive Equipment Leaks	40 CFR 60 Subpart VV -NSPS for SOCM I Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the 326 Batch Area is not an affected facility under Subpart VV since process units do not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
GWY	None	Gateway	40 CFR 63 Subpart F -Sections 63.100(b) and 63.100(f)(1)	Process unit is not subject to 40 CFR 63 Subparts F, G, or H (HON) since batch operations are exempted by 63.100(f)(1). Also, unit does not manufacture as a primary product a chemical listed in Table 1 of Subpart F.
GWY	Fugitives	Gateway Fugitives	40 CFR 60 Subpart VV -NSPS for SOCM I Equipment Leaks (adopted by reference at 401 KAR 60:005)	Equipment in the Gateway facility is not an affected facility under Subpart VV since process unit does not produce, as an intermediate or final product, a chemical listed in 40 CFR 60.489.
GWY	Fugitives	Gateway Fugitives	40 CFR 63 Subpart J -NESHAP for Equipment Leaks of Benzene (adopted by reference at 401 KAR 57:002).	Equipment in the Gateway facility is not an affected facility under Subpart J since no equipment is in benzene service (greater than or equal to 10% benzene by weight). Benzene is only present in small amounts (much less than 10%) as a residual in some raw materials, and as an impurity in toluene.

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**NON-APPLICABLE REGULATIONS/REQUIREMENTS**

Unit	Source ID	Description	Regulation	Description of Exemption
GWY		Gateway Oxidizer	401 KAR 50:055 -Section 1(1)	Emissions which, due to shutdown and malfunctions, temporarily exceed an emission standard will not be deemed in violation of the standard if all requirements of Section 1 are satisfied and the Director has made the determinations specified in Section 1(4).
GWY		Gateway Reactor	40 CFR 60 Subpart RRR -NSPS for SO ₂ MI Reactor Processes (adopted by reference at 401 KAR 60:005)	Reactor is not subject to Subpart RRR since batch operations are exempted by 40 CFR 60.700(c)(1).
GWY		Gateway Storage Tanks	40 CFR 63 Subpart Y -NESHAP for Benzene Storage Vessels (adopted by reference at 401 KAR 57:002)	Storage vessels are not an affected facility under Subpart Y since tanks will not store benzene. Additionally, capacity of each tank is less than 10,000 gallons so tanks are exempted by 61.270(b).

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS

This table is not an inclusive or exclusive list of process equipment. All emission units are either listed in Section B of this permit, are Insignificant Activities listed in Section C, or are considered to be unlisted Trivial Activities. The permittee may install or remove equipment with are not "emission units" as defined by 401 KAR 52:020. Insignificant activities may be installed or removed pursuant to the requirements of " Section 502(b)(10) Changes " contained in 401 KAR 52:020 Section 18.

EQUIPMENT LISTING

Process Equipment	Date Commenced
BLO	
<i>BLO Area 224:</i>	
215/3002 VOL Storage Tank	1/55
224/3201 Gas Separator	8/60
224/3202 Receiver	8/60
224/3203 Receiver	8/60
224/3302 Reactor	7/60
224/3401 Lights Tower	7/60
224/3402 Final Tower	7/60
<i>BLO Area 225:</i>	
126/3001 VOL Storage Tank	8/90
225/3202 Gas Separator	10/64
225/3208 Receiver	1/87
225/3209 Receiver	1/87
225/3301 Reactor	9/64
225/3401 Lights Tower	9/65
225/3402 Final Tower	9/65
BLO - Fugitive Components in VOC Service	1955 - Present
2-Pyrrolidones and Sub-Pyrrolidones	
<i>211 2-Pyrrolidone:</i>	
211/3209 Flash Drum	1/55
211/3218 VOL Tank	1/55

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
211/3219 VOL Tank	1/55
211/3303 Reactor	9/55
211/3411 Ammonia Column	1/60
211/3415 Residue Tower	11/81
<i>211 Sub-Pyrrolidones:</i>	
210/3009 VOL Tank	1/55
210/3216 VOL Tank	9/89
211/3305 Reactor	4/92
311/3006 VOL Tank	2001
310/3012 VOL Tank	1/56
311/3001 VOL Tank	8/59
311/3007 VOL Tank	2001
311/3011 VOL Tank	4/56
C1_LOAD Tank Wagon Loading	NA
<i>222 2-Pyrrolidone:</i>	
210/3018 VOL Storage Tank	7/60
210/3026 VOL Storage Tank	6/65
222/3002 VOL Tank	8/60
222/3201 Flash Drum	7/60
222/3204 VOL Tank	8/60
222/3205 VOL Tank	8/60
222/3211 Surge Drum	9/74
222/3302 Reactor	12/86
222/3401 Ammonia Tower	7/60
222/3402 Residue Tower	7/60
222/3404 Ammonia Stripper	9/64
321/3004 VOL Storage Tank	7/60
Vinyl Pyrrolidone	

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
<i>VP Crude Reaction:</i>	
326/3205 Buffer Tank	2/62
326/3208 Buffer Tank	10/62
326/3217 Buffer Tank	9/65
326/3301 Prep Kettle	12/55
326/3302 A Vinylator	1/55
326/3303 B Vinylator	7/60
326/3304 Prep Kettle	10/62
326/3305 C Vinylator	10/62
326/3306 D Vinylator	11/65
<i>VP Distillation:</i>	
210/3016 VOL Storage Tank	7/60
210/3017 VOL Storage Tank	7/60
210/3028 VOL Storage Tank	6/65
223/3004 VOL Storage Tank	11/84
223/3205 Receiver	8/60
223/3206 Receiver	8/60
223/3207 Tank	4/65
223/3208 Receiver	7/65
223/3401 Lights Tower	7/60
223/3402 Recovered Pyrr Tower	7/60
223/3403 VP Product Tower	9/65
223/3501 VP Stripper	5/73
235/3013 VOL Tank	2/68
321/3002 VOL Tank	7/60
321/3008 VOL Tank	1/55
326/3003 VOL Tank	4/65
326/3213 Flash Drum	12/62

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
<i>HP VP Production:</i>	
237/3211 Crystallizer/Collector	8/94
237/3001 VOL Storage Tank	4/65
237/3216 Ammonia Tank	5/95
<i>Acetylene Purification:</i>	
326-3406 Flame Arrestor	7/62
326-3411 Caustic Scrubber	12/84
326-3413 Acid Tower	4/92
326-3255 Neutralization Tank	3/94
Solvent Recovery	
231/3101 By-product Drum	7/65
231/3105 VOL Tank	12/90
231/3106 VOL Tank	12/90
231/3107 VOL Tank	12/89
231/3202 Column Drum	12/89
231/3213 Column Drum	11/89
231/3214 By-product Drum	11/89
231/3402 Acetone Column	Modified 1989
231/3403 Ethanol Column	Modified 1989
231/3406 Venturi Scrubber	7/65
330/3002 VOL Tank	6/64
330/3011 VOL Tank	10/92
330/3102 VOL Tank	6/64
330/3103 Feed Tank	6/64
330/3104 Feed Tank	6/64
330/3108 VOL Tank	6/64
330/3109 Shift Tank	5/90
Fugitive Components in VOC Service	1964 - present
Vinyl Ethers	

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
<i>VE Crude Reaction:</i>	
332/3005 Non-organic Storage Tank	4/93
332/3206 Catalyst Prep Tank	3/65
332/3207 Catalyst Feed Tank	3/65
332/3209 Carburetor	3/65
332/3214 Receiver Tank	2/65
332/3302 Reactor	2/93
332/3406 Purge Gas Scrubber	3/65
333/3001 Methanol Tank	4/65
333/3002 VOL Storage Tank	4/65
333/3003 VOL Tank	4/65
<i>VE Distillation:</i>	
332/3003 Non-organic Tank	3/65
332/3215 Separator	2/65
332/3216 Feed Tank	2/65
332/3218 Shift Tank	3/67
332/3219 Shift Tank	2/65
332/3220 Feed Tank	3/65
332/3229 Separator	4/65
332/3240 VOL Tank	6/92
332/3404 Product Tower	9/65
332/3407 Wash Tower	7/65
332/3411 Steam Stripper Tower	12/54
332/3405 Alcohol Column	7/65
332/3408 Dryer	7/65
332/3409 Dryer	7/65
332/3410 Dryer	7/65
<i>Acetylene Purification:</i>	

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
332/3401 Flame Arrestor	3/65
332/3412 Sulfuric Acid Tower	12/89
332/3403 Caustic Scrubber	4/65
332/3208 Buffer Tank	3/65
VE - Fugitive Components in VOC Service	1965 - Present
Stand-Alone Storage Tanks	
Tank 313-3004 VOL Tank	1965
Tank 333-3101 VOL Tank	1965
Tank 333-3102 VOL Tank	1965
Tank 333-3103 VOL Tank	1965
Tank 333-3104 VOL Tank	1965
Tank 333-3105 VOL Tank	1965
Tank 333-3106 VOL Tank	1965
Tank 333-3107 VOL Tank	1965
Tank 333-3108 VOL Tank	1965
Tank 333-3109 VOL Tank	1965
Wastewater Treatment	
Ditches, Basins, Clarifiers, etc.	Modified mid-1970s
240 Building	
240/3201 Catalyst Pot	
240/3202 Receiver	10/67
240/3207 Receiver	3/68
240/3221 Weigh Tank	3/68
240/3224 Strip Tank	4/73
240/3226 Receiving Tank	6/87
240/3229 Blender	6/87
240/3233 Blender	6/87
240/3239 Break Tank	6/87
240/3241 Catalyst Pot	10/89

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
240/3242 Hold Tank	8/90
240/3243 Catalyst Charge Pot	11/92
240/3245 Initiator Tank	4/92
240/3246 Receiver	4/92
240/3246 Receiver	4/92
240/3247 Receiver	4/92
240/3252 Init. Tank	4/92
240/3253 Strip Tank	4/92
240/3254 Dryer Feed Tank	4/92
240/3259 Heads Tank	7/92
240/3260 Catalyst Charge Pot	1/93
240/3261 Catalyst Charge Pot	5/94
240/3302 Dryer Feed Tank	8/67
240/3303 Train 1 Reactor	8/68
240/3304 Dryer Feed Tank	8/68
240/3307 Train 3 Reactor	6/87
240/3308 Train 4 Reactor	4/92
240/3309 Train 2 Reactor	6/93
240/3501 TR2 Dryer	2/67
240/3502 TR1 Dryer	11/67
240/3503 TR3 Dryer	4/87
240/3701 DR2 Dryer	2/67
240/3702 Blender	8/67
240/3703 Blender	8/67
240/3704 Dryer Cyclone	11/67
240/3705 Blender	8/67
240/3706 Blender	8/67
240/3708 Dryer Baghouse	7/87

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
240/3709 Dryer Baghouse	7/87
240/3710 Blender	4/87
240/3711 Blender	4/87
240/3712 Dryer Cyclone	6/87
240/3713 Dryer Baghouse	7/87
240/4004 Recovery Unit	6/92
242/3001 Benzene Tank	8/67
242/3002 Solution Tank	8/67
242/3005 Benzene Tank	8/76
240 - Fugitive Components in VOC Service	1967 - Present
236 Building	
236/2331 Receiver	4/74
236/3004 Dryer Tank	4/87
236/3005 Dump Tank	4/87
236/3006 Dryer Feed Tank	4/87
236/3010 Water Tank	8/90
236/3201 Receiver	8/67
236/3203 Hold Tank	8/67
236/3204 Blend Tank	Unknown
236/3205. Weigh Tnk	8/67
236/3206 Weigh Tank	8/67
236/3209 Catalyst Pot	2/68
236/3210 Catalyst Pot	2/68
236/3215 Dilution Tank	1/68
236/3216 Feed Tank	12/67
236/3217 Head Tank	1/68
236/3221 N. Reslurry Tank	12/67

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
236/3222 S. Reslurry Tank	12/67
236/3229 Head Tank	9/68
236/3231 Receiver	4/74
236/3232 Water Tank	8/81
236/3234 Cyclone Separator	1/83
236/3236 Head Tank	9/84
236/3237 Dryer Feed Tank	9/84
236/3238 Charge Tank	4/87
236/3239 Ammonia Tank	4/87
236/3242 Mix Tank	4/87
236/3251 Blend Tank	7/87
236/3252 Receiver	Unknown
236/3256 Catalyst Charge Pot	6/87
236/3258 Receiver	3/88
236/3259 Blend Tank	1/89
236/3263 Hold Tank	4/87
236/3264 Head Tank	11/88
236/3266 Receiver Tank	8/67
236/3269 Hot Water Wash	4/87
236/3270 Slurry Mix Tank	4/87
236/3271 Knockout Pot	7/91
236/3275 Catalyst Charge Pot	12/92
236/3276 Catalyst Charge Pot	9/92
236/3277 Blend Tank	9/92
236/3278 Dryer Feed	9/92
236/3285 Slurry Wash Tank A	4/92
236/3286 Slurry Wash Tank B	4/92
236/3287 Reslurry Tank	4/92

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
236/3288 Acid Injection Tank	4/92
236/3289 Caustic Injection Tank	4/92
236/3291 VOLTank	6/92
236/3294 Receiver	8/93
236/3296 Blend Tank	8/92
236/32102 Filter Feed Tank	10/96
236/32103 Filter Feed Tank	10/96
236/32104 Catalyst Tank	1/97
236/32106 Filter Feed Tank	1/98
236/32107 Dryer Feed Tank	1/98
236/32110 Expansion Tank	1/97
236/32111 Water Tank	1/97
236/3304 No. 1 Blend Tank	10/67
236/3305 No. 2 Blend Tank	10/67
236/3306 Reactor	10/67
236/3309 VOL Tank	10/67
236/3310 Reactor	9/97
236/3311 Filter Feed Tank	12/67
236/3312 Filter Feed Tank	12/67
236/3314 Reactor	9/97
236/3315 Reactor	10/85
236/3319 Reactor	7/86
236/3320 Reactor	2/87
236/3321 Reactor	7/86
236/3322 Reactor	7/85
236/3323 Reactor	4/87
236/3324 Reactor	4/87
236/3327 Reactor	1/88

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
236/3328 Reactor	4/88
236/3329 Reactor	9/92
236/3330 Polymerizer	8/92
236/3331 Reactor	1/97
236/3401 Column	11/70
236/3501 Dryer	12/67
236/3503 Dryer	7/84
236/3504 Dryer	2/87
236/3505 Dryer	2/87
236/3506 Drum Dryer	2/87
236/3509 Drum Dryer	1/97
236/36104 Stage 1 Filter	3/92
236/36105 Stage 2 Filter	3/92
236/36130,1,2,3 Dryer Feed Filters	1/97
236/36134,5,6,7 Transfer Filters	1/97
236/3701 Dryer Cyclone	12/67
236/3702 Product Hopper	12/67
236/3705 Feed Hopper	1/83
236/3706 Packaging Hopper	1/83
236/3707 Hopper	1/83
236/3708 Dryer Cyclone	8/84
236/3709 Product Hopper	8/84
236/3710 Product Hopper	4/87
236/3711 Product Hopper	4/87
236/3712 Product Hopper	4/87
236/3716 Dryer Cyclone	6/87
236/3723 Cyclone Screener	1/90
236/4402 Air Mill	1/83

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
236/4405 Mill	7/87
236/4406 Mill	6/87
236/4408 Hammer Mill	6/87
236/4412 Mill	6/92
236/4418 Coarse Mill (Insig.)	1/97
236/3730 Product Hopper (Insig.)	1/97
237/3732 Homogenizer (Insig.)	1/97
236 - Fugitive Components in VOC Service	1967 - Present
315 Building	
315/3006 Receiver	11/62
315/3007 Receiver	11/62
315/3204 Receiver	2/56
315/3205 Receiver	2/56
315/3206 Receiver	2/56
315/3207 Receiver	2/56
315/3208 Receiver	2/56
315/3222 Receiver	5/60
315/3225 Receiver	12/60
315/3226 Receiver	12/60
315/3227 Weigh Tank	12/60
315/3235 Weigh Tank	11/62
315/3241 Receiver	12/62
315/3242 Receiver	12/62
315/3243 Receiver	12/62
315/3245 VOL Tank	5/65
315/3246 VOL Tank	5/65
315/3248 Feed Tank	8/67

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
315/3249 Charge Tank	5/55
315/3250 VOL Tank	6/68
315/3251 Weigh Tank	10/69
315/3254 Decant Tank	11/57
315/3263 Head Tank	12/85
315/3264 Head Tank	12/85
315/3265 Charge Pot	12/85
315/3275 Charge Pot	9/87
315/3276 Charge Pot	9/87
315/3281 Charge Pot	4/89
315/3282 Charge Pot	4/89
315/3283 Add. Tank	8/90
315/3284 Add. Tank	8/90
315/3285 Charge Pot	8/90
315/3286 Charge Pot	8/90
315/3287 Charge Pot	8/90
315/3289 Charge Pot	11/90
315/3290 Receiver	3/91
315/3291 Eductor	3/91
315/3292 Head Tank	11/89
315/3293 Receiver	8/91
315/3294 Cat. Pot	3/92
315/3295 Catalyst Pot	6/92
315/3296 Charge Pot	6/93
315/3297 Charge Pot	6/93
315/3299 Head Tank	Unknown
315/3300 Hydrogenator	5/56
315/3301 Distillation Kettle	11/57

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
315/3302 Polymerizer	11/57
315/3303 Polymerizer	11/57
315/3304 Polymerizer	11/57
315/3305 VOL Tank	2/56
315/3306 Polymerizer	11/90
315/3307 Reactor	3/75
315/3308 VOL Tank	7/60
315/3310 Dryer	8/63
315/3311 Dryer	8/63
315/3312 Polymerizer	3/64
315/3313 Hold Tank	3/64
315/3315 Polymerizer	4/86
315/3404 Column Still	4/94
315/3504 Evaporator	3/1/75
315/3523 Decant Tank	2/63
315/3609 Fabric Filter	1/63
315/3610 Fabric Filter	8/64
315/3665 Screener	11/92
315/3710 Hopper	11/92
200 Building	
200/3202 Non-organic Storage Tank	1/55
200/3204 Feed Tank	5/55
200/3205 Receiver Tank	1/65
200/3206 Receiver Tank	1/65
200/3207 Dryer Feed Tank	2/65
200/3210 Charge Pot	1/65
200/3211 Charge Pot	12/66
200/3212 Charge Pot	12/66

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
200/3213 Charge Pot	7/65
200/3214 Charge Pot	12/66
200/3215 Pot	12/66
200/3216 Head Tank	12/66
200/3217 Head Tank	12/66
200/3220 Charge Pot	12/68
200/3221 Charge Pot	12/68
200/3224 Charge Pot	Unknown
200/3226 Charge Pot	9/86
200/3228 Receiver Tank	2/89
200/3231 Separator	8/91
200/3301 Reactor	6/56
200/3302 Reactor	6/56
200/3501 Steam Spray Dryer	Modified 1998
200/3502 Gas Spray Dryer	Modified 1997
200/3613 Screener	4/65
200/3701 Primary Cyclone	6/55
200/3702 Primary Cyclone	6/55
200/3704 Drumming Hopper	4/55
200/3705 Primary Cyclone	10/64
200/3708 Drumming Hopper	3/65
200/3712 Dustex Cyclone	11/67
200/3717 Secondary Cyclone	4/88
200/3718 Secondary Cyclone	11/93
210/3303 Reactor	12/66
210/3304 Reactor	12/66
334 Building	
334/3506 PVP Ribbon Blender	9/89

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
334/3507 PVP Ribbon Blender	1/88
334/3715 Surge Hopper	6/88
334/3717 Ribbon Blender	3/88
334/5329 Iodine Charger	Unknown
326 Batch Process Area	
326/3205 Buffer Tank	9/60
326/3208 Buffer Tank	10/62
326/3217 Buffer Tank	9/65
326/3301 Prep Kettle	6/56
326/3302 Vinylator A	6/56
326/3303 Vinylator B	6/62
326/3304 Prep Kettle	4/63
326/3305 Vinylator B	10/62
326/3306 Vinylator A	11/65
326/3827 Vinyl Cooler C	11/89
326/3831 Vinyl Cooler A	10/91
326/3830 Vinyl Cooler B	5/92
326/3835 Vinyl Cooler D	10/92
Gateway Facility	
Catalyst Pot 1	7/2003 (estimated)
Catalyst Pot 2	7/2003 (estimated)
Catalyst Pot 3	7/2003 (estimated)
Monomer Storage Tank	7/2003 (estimated)
Solvent Storage Tank	7/2003 (estimated)
Solvent Storage Tank	7/2003 (estimated)
Reactor	7/2003 (estimated)
Feed Tank/Receiver	7/2003 (estimated)
Hold Tank	7/2003 (estimated)

SECTION J - NON-APPLICABLE REGULATIONS/REQUIREMENTS**EQUIPMENT LISTING**

Process Equipment	Date Commenced
Filters	7/2003 (estimated)
Feed Tank/Receiver	7/2003 (estimated)
Utilities	
115/5307 Riley Boiler	1964
115/5303 Babcock and Wilcox Boiler	1955
115/5304 Wickes Boiler	1958
115/5306 E. Paracymene Heater	1961
115/5328 Zurn Boiler	1972 (installed 11/86 at ISP)
126/5301 W. Paracymene Heater	1990
North Cooling Tower #1	1956
North Cooling Tower #2	1960
South Cooling Tower #3	1966
South Cooling Tower #4	1985

ATTACHMENT D

APPLICATION

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